GNP East, Inc.
GNP Maine Holdings, LLC
Penobscot County
East Millinocket, Maine
A-405-70-G-R/A

Departmental
Findings of Fact and Order
Part 70 Air Emission License
Renewal/Amendment

After review of the Part 70 License renewal and amendment applications, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A, §344 and §590, the Maine Department of Environmental Protection (the Department) finds the following facts:

I. REGISTRATION

A. Introduction

FACILITY	GNP East, Inc. and GNP Maine Holdings, LLC (co-licensee)
LICENSE TYPE	Part 70 License Renewal Part 70 Minor License Modification
NAICS CODES	322122
NATURE OF BUSINESS	Paper Mill
FACILITY LOCATION	Main Street, East Millinocket, Maine

GNP East, Inc. and co-licensee GNP Maine Holdings, LLC (hereafter collectively called GNP East) own and operate an integrated pulp and paper manufacturing facility consisting of power boilers, mechanical pulping equipment, paper machines, emergency generators, and other support and process air emission sources.

GNP East has the potential to emit more than 100 tons per year (TPY) of particulate matter (PM), Particulate Matter under 10 micrometers (PM_{10}), particulate matter under 2.5 micrometers ($PM_{2.5}$), sulfur dioxide (SO_2), nitrogen oxides (NO_x), carbon monoxide (CO), and volatile organic compounds (VOC) and more than 100,000 tons per year of carbon dioxide equivalent (CO_2e); therefore, the source is a major source for criteria pollutants. Based on 2008 annual emissions reported by this source, GNP East has the potential to emit more than 10 TPY of a single hazardous air pollutant (HAP) or more than 25 TPY of combined HAP; therefore, the source is a major source for HAP.

B. Emission Equipment

The following emission units are addressed by this Part 70 License:

Boilers

Equipment	Max. Heat Input Capacity (MMBtu/hr)	Max. Firing Rate	Fuel Type, % sulfur	Manuf. & Install. Date	Stack #
Power Boiler #1 (EB1)	370	2467 gal/hour	#6 Fuel Oil (1.5%) #2 Fuel Oil (0.5%)	1953	1
Power Boiler #2 (EB2)	374.9	2467 gal/hour	#6 Fuel Oil (1.5%) #2 Fuel Oil (0.5%)		2
		0.372 MMscf/ hour	Natural Gas (negligible)		
Power Boiler #3 (EB3)	498	72.8 tons/hr	biomass	1980	3
	240	1550 gal/hr	#6, #2, and spec. waste oil		

Generators

Equipment	Max. Heat Input Capacity (MMBtu/hr)	Output (hp)	Fuel, % sulfur	Manuf. & Install. Date
Fire Protection Pump (EGR-V6)	4.69	660	Diesel, 0.0015%	1998
Emergency Lift Pump* (EWWTP-S2)	2.1	225		1974
Instrument Emergency Engine (EG-INST)	< 0.1	8.3	Propane (LPG)	circa 1970

* formerly referred to as the Clarifier Emergency Generator

Process Equipment

Equipment	Production Rate	Type
Grinder Room (EGR)	310,000 cords/year	Process Area
Screen Room (ESR)	N/A	Production Area
Recycle Facility (ERCY)	600 air dried tons pulp per day	Production Area
Paper Mill (EPM)	450,000 air dried tons paper/year	Production Area
Wastewater Treatment Plant (EWWTP)	16,425,000,000 gal/year	Process Area
Sludge Handling System Cyclone	N/A	Process Equipment
Lime Silos		

The descriptions above are nominal capacities and do not represent limits. Production capacities within the Findings of Fact of this License are referenced for the purposes of description only. Capacities that are determined to be specific license limits are listed as such within the Order section of this License.

GNP East, Inc. has additional insignificant activities which do not need to be listed in the emission equipment table above. The list of insignificant activities can be found in the Part 70 license application and in Appendix B of *Part 70 Air Emission License Regulations*, 06-096 CMR 140 (as amended).

C. Application Classification

The application for GNP East is for the renewal of their existing Part 70 Air License and subsequent Part 70 amendments. Pursuant to Section 2(A) of 06-096 CMR 140, GNP East has also requested incorporation into the Part 70 Air License the relevant terms and conditions of the 06-096 CMR 115 New Source Review (NSR) license A-405-77-2-A issued to GNP East January 23, 2013. Therefore, the license is considered to be a Part 70 License renewal with the incorporation of NSR requirements, issued under *Part 70 Air Emission License Regulations*, 06-096 CMR 140 (as amended).

D. Facility Description

Spruce and fir logs of various lengths are received daily in the Woodyard area of the GNP East facility. These logs are slashed to four-foot lengths and conveyed to the Woodroom, where the bark is removed in four debarking drums. Bark and waste wood is used as fuel for the biomass boiler, and the debarked wood is conveyed to the Grinder Room for further processing.

The Grinder Room uses large, rotating grinder stones to mechanically reduce the debarked wood to heavy pulp slurry. This pulp is then conveyed to the Screen Room for further processing. To improve the quality of the raw pulp to a level that is acceptable for use on the paper machines, pulp is refined, screened, cleaned, and thickened in the Screen Room prior to being conveyed to storage tanks, from which the pulp will be conveyed to the paper machines.

In the Paper Room, comprised of two paper machines and equipment supporting their operation, groundwood pulp from storage is blended with purchased Kraft pulp in various ratios to produce specific types of paper to meet customer specifications.

This facility operates a #6 oil-fired boiler, a #6 oil- and/or natural gas-fired boiler, and a biomass/multi-fueled boiler. Steam from the boilers is used to produce

electricity in both reducing and condensing turbines. Reduced steam is used on the paper machines to dry paper and heat various streams of water and pulp.

Wastewater from all steps of the process is treated at the facility's Wastewater Treatment Plant. The plant utilizes an activated sludge treatment process, with primary and secondary clarifiers, an aeration basin, and sludge dewatering equipment. All sludge produced at the Wastewater Treatment Plant is currently used as fuel in the biomass boiler.

There are parts washers in the Maintenance Shop, Equipment Maintenance Garage, and Steam Plant. All parts washers on site have been switched from using VOC containing solvents to 100% aqueous detergents.

E. General Facility Requirements

GNP East is subject to the following state and federal regulations listed below, in addition to the regulations listed for specific units as described in this license.

Citation	Requirement Title
06-096 CMR 101	Visible Emissions
06-096 CMR 102	Open Burning
06-096 CMR 103	Fuel Burning Equipment Particulate Emission Standard
06-096 CMR 106	Low Sulfur Fuel
06-096 CMR 109	Emergency Episode Regulation
06-096 CMR 110	Ambient Air Quality Standard
06-096 CMR 116	Prohibited Dispersion Techniques
06-096 CMR 117	Source Surveillance
06-096 CMR 134	Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds
06-096 CMR 137	Emission Statements
06-096 CMR 138	Reasonably Available Control Technology for Facilities that Emit Nitrogen Oxides
06-096 CMR 140	Part 70 Air Emission License Regulations
40 CFR Part 63, Subpart ZZZZ	National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
40 CFR Part 63, Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters
40 CFR Part 70	State Operating Permit Programs

Note: CMR = Code of Maine Regulations
CFR = Code of Federal Regulations

II. BEST PRACTICAL TREATMENT and EMISSION STANDARDS

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Definitions Regulation, 06-096 CMR 100 (as amended). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas. BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering the following:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

BPT requirements are addressed for each licensed emissions unit at this facility in this air emission license.

A. Reasonably Available Control Technology (RACT) for NO_x

Reasonably Available Control Technology for Facilities that Emit Nitrogen Oxides, 06-096 CMR 138 (as amended) is applicable to sources that have the potential to emit quantities of NO_x equal to or greater than 100 tons/year. NO_x RACT requirements for the facility were addressed in air emission license amendment A-405-71-E-A, issued May 7, 1996. Power Boilers EB1, EB2, and EB3, and the Emergency Lift Pump (formerly referred to as the Clarifier Emergency Generator or the Clarifier Backup Pump) were determined to be subject to NO_x RACT. The NOx RACT requirements are summarized as follows:

Unit	NO_x RACT Requirement
Power Boilers EB1 and EB2	the use of low-NO_x burners and a Foxboro IA Digital Control System (DCS)
Power Boiler EB3	An emission limit of 0.4 lb/MMBtu, with compliance demonstrated through the use of a continuous emission monitor (CEM) for NO_x which satisfies the requirements of 06-096 CMR 117, *Source Surveillance – Emissions Monitoring*
Emergency Lift Pump	Limit the operating hours to less than 2700 hours per year, which results in NO_x emissions under 10 tons/year

NO_x RACT requirements for these units are incorporated in this renewal.

B. Reasonably Available Control Technology (RACT) for VOC

Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds, 06-096 CMR 134 (as amended) is applicable to sources that have the potential to emit quantities of VOC equal to or greater than 40 tons/year. Amendment A-405-71-E-A, issued May 7, 1996, addressed VOC RACT requirements for GNP East. It was determined that the following sources at GNP East are subject to VOC RACT requirements: certain pulp processes (bark preparation building, grinder room, stock chests, and screening and washing), and the wastewater treatment system.

Control technologies evaluated for the pulp processes were found to be economically unfeasible. VOC RACT for the wastewater treatment system was determined to be the operation of the wastewater treatment system as required by effluent discharge license restrictions issued pursuant to the facility's National Pollution Discharge Elimination System (NPDES) discharge permit. The VOC RACT requirements are incorporated in this renewal.

C. PSD/BACT Review

The US Environmental Protection Agency (EPA) issued PSD Permit Number 006-109 ME 03 on May 1, 1979, to Katahdin Paper Company, LLC, now GNP East. The license was issued to permit construction of the Power Boiler EB3. GNP East has constructed and operates EB3 and has undergone the appropriate air licensing procedures to address these changes.

Additional PSD amendments were issued: Air License A-405-77-1-M on December 14, 2009, to license installation of a cyclone as part of a new sludge handling system to bring Recycle Fiber Plant sludge to the Power Boiler EB3; and Air License A-405-77-2-A on January 23, 2013, to license the firing of natural gas in EB2.

D. NESHAP 40 CFR Part 63, Subpart DDDDD: Boiler MACT

1. *Introduction*

Because GNP East is a major source of HAP emissions, some emissions units at the facility are subject to the requirements of 40 CFR Part 63, Subpart DDDDD, *NESHAPs for Industrial, Commercial, and Institutional Boilers and Process Heaters*. This regulation establishes emissions limitations and work practice standards governing HAP emissions from units located at major sources of HAPs, for each unit which falls into one of the subcategories listed under *Types of Boilers and Process Heaters* in 40 CFR §63.7499. Specific requirements of Subpart DDDDD applicable to boilers and process heaters at this facility are addressed in areas specific to the affected units.

Following the effective compliance date of 40 CFR Part 63, Subpart DDDDD, GNP East must operate and maintain affected units and the associated air pollution control equipment and monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, and inspection of the source. [40 CFR §63.7500(a)(3)]

2. *Compliance Date*
Affected units must be in compliance with Subpart DDDDD requirements no later than January 31, 2016, or by the date determined through an extension of compliance if requested and granted in accordance with 40 CFR §63.6(i). [40 CFR §63.7595(b)]

3. *Energy Assessment*
The facility shall have a one-time energy assessment performed by a qualified energy assessor no later than January 31, 2016, or comply with any amended requirements of the rule pertaining to the energy assessment and its due date. The energy assessment must include the elements specified in Part 4 of Table 3 of Subpart DDDDD, as applicable. [40 CFR §63.7500(e)]

An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the aforementioned energy assessment requirements is valid. A facility that operates under an energy management program compatible with ISO 50001 that includes applicable boilers and process heaters satisfies the energy assessment requirements.

4. *Recordkeeping*
GNP East shall maintain records in accordance with 40 CFR §63.7555 and containing information necessary to document compliance with all applicable requirements, including but not limited to the following:

a. A copy of each notification and report submitted to comply with this Subpart, along with any supporting documentation.
b. Records of energy assessments and tune-ups, as applicable.

GNP East shall maintain records in accordance with §63.10(b).

5. *Reporting*
GNP East shall submit a compliance report for the one-time energy assessment, as applicable, and for each tune-up required by this Subpart in accordance with 40 CFR §63.7550.

6. *Initial Notification*
GNP East submitted their Boiler MACT Initial Notification by May 31, 2013, to both the Department and U.S. EPA Region I and in accordance with 40 CFR §63.9(b) and §63.7545(a).

E. Compliance Assurance Monitoring (CAM)

40 CFR Part 64, *Compliance Assurance Monitoring,* is applicable to units at major sources if the unit has emission limits, a control device to meet the limits, and pre-control emissions greater than 100 tons/year for any pollutant.

The requirements of Part 64 do not apply to either of the following:

1. Emission limitations or standards proposed by the Administrator after November 15, 1990, pursuant to Section 111 or 112 of the CAA (a NSPS or NESHAPs regulation) [40 CFR §64.2(b)(1)(i)], such as the Boiler MACT requirements of 40 CFR Part 63, Subpart DDDDD.

2. Emission limitations or standards for which a Part 70 license specifies a continuous compliance determination method, as defined in §64.1 [40 CFR §64.2(b)(1)(vi)], such as the requirement of a CEMS with the averaging period consistent with the emission limitation or standard.

Power Boiler EB3 has pre-control emissions greater than 100 tons/year and is equipped with mechanical dust collectors and an electrostatic precipitator (ESP) to control particulate emissions. Thus, EB3 is subject to applicable requirements of Part 64. However, EB3 is subject to emissions limits in NESHAP 40 CFR Part 63, Subpart DDDDD proposed after November 15, 1990; thus this unit is exempt from CAM requirements. [40 CFR §64.2(b)(1)(i)] There are no other units at GNP East subject to CAM requirements.

F. Power Boilers #1 and #2 (EB1 & EB2)

1. *Introduction*
Power Boilers #1 and #2 (EB1 & EB2) were manufactured in 1953 by Combustion Engineering, model number VU-50, each with a maximum input rating of 370 MMBtu/hour and maximum fuel oil firing rate of 2467 gallons/hour. These boilers are each equipped with six Coen burners, model number 2MV, for firing No. 2 and No. 6 fuel oil. Low NO_x burners and a Foxboro IA Digital Control System were installed on EB1 and EB2 in 1994-1995. Emissions from EB1 and EB2 exit through separate 169-ft. above ground level (AGL) stacks.

2. *NSR License #2 and EB2*
EB2 was licensed to fire natural gas as an additional fuel in January of 2013. To account for the lower output from natural gas because of the greater hydrogen content in natural gas than in fuel oil (thus creating a higher water content in the exhaust which absorbs a portion of the generated heat), EB2's maximum heat input capacity was increased, according to the following:

Equipment	Max. Capacity (MMBtu/hr)	Max. Firing Rate	Fuel Type, % sulfur	Year of Installation	Stack #
Power Boiler #2 (EB2)	374.9	2467 gal/hour	No. 6 Fuel Oil (1.5%) No. 2 Fuel Oil (0.5%)	1953	2
		0.372 MMscf/hour	Natural Gas (negligible sulfur content)		

GNP East fires natural gas as the primary fuel in the EB2 but retains the physical and licensed ability to fire fuel oil as the backup fuel in case of disruptions to the natural gas supply. GNP East receives compressed natural gas (CNG) by truck, but may opt to supply natural gas to the boiler via a natural gas pipeline, should this option become available. CNG is decompressed at the storage area from 3600 pounds per square inch-gauge (psig) to 100 psig and heated using a natural gas-fired heater, then piped to the steam plant, and finally to the burner fronts via valve trains, arriving at approximately 40 psig. The burners themselves have been modified to include new natural gas spuds while using the existing oil guns and igniters. Total heat input for the modified burners' configuration is 374.9 MMBtu/hour.

3. *New Source Performance Standards (NSPS)*
Boilers EB1 and EB2 were both installed in 1953, prior to the New Source Performance Standards (NSPS) Subpart D, Da, and Db applicability dates; therefore, there are no NSPS requirements applicable to EB1 and EB2.

4. *Control Equipment*
Low NO_x burners and a Foxboro IA Digital Control System are utilized on EB1 and EB2 to control NO_x emissions and optimize boiler operation to minimize air pollutant emissions.

5. *National Emissions Standards for Hazardous Air Pollutants (NESHAP)*
Under the Boiler MACT regulation 40 CFR Part 63, Subpart DDDDD, Boiler EB1 (firing #6 fuel oil with #2 fuel oil as optional start-up fuel) will be operated as a Limited Use Boiler, and EB2 (firing natural gas) will be operated as a Unit Designed to Burn Gas 1.

a. EB1: Limited Use Boiler

As a Limited Use Boiler, EB1 must be capped via a federally enforceable license condition to less than 10% average annual capacity factor (equivalent to 876 hours/year at full capacity).

EB1 must undergo a tune-up every five years as specified in 40 CFR §63.7540. This boiler is not subject to specific emission limits, the annual tune-up requirement, or the energy assessment requirements in Subpart DDDDD's Table 3 or the operating limits in Subpart DDDDD's Table 4. [§63.7500(c)] There are no applicable emission limits under this Subpart and thus no corresponding performance test requirements.

Because EB1 is currently not in operation to support production, the initial tune-up must be conducted within 30 calendar days of startup of the unit. [40 CFR Part 63, Subpart DDDDD, §63.7510 (j)] Subsequent tune-ups are required every five calendar years. A compliance report is to be submitted after each tune-up, in accordance with Subpart DDDDD requirements.

b. EB2: Unit Designed to Burn Gas 1

The predominant use of natural gas in EB2 classifies the boiler as a "Unit Designed to Burn Gas 1". To remain as such, EB2 shall not fire liquid fuel for periodic testing of liquid fuel, maintenance, or operator training for a combined total of more than 48 hours during any calendar year. This does not preclude the firing of liquid fuel during periods of gas curtailment or gas supply interruptions of any duration.

There are no applicable emission or operating limits for Boiler EB2 under Subpart DDDDD and thus no corresponding performance test requirements. [40 CFR §63.7500 (e)]

If a fuel other than natural gas is to be burned in EB2, a notification of alternative fuel use must be submitted to the Department within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, per 40 CFR §63.7545(f).

Because EB2 is an existing boiler with a continuous oxygen trim system that maintains an optimum air-to-fuel ratio, a tune-up is required every five years as specified in 40 CFR §63.7540. A compliance report is to be submitted after each tune-up, in accordance with Subpart DDDDD requirements.

6. *Emission Limits and Streamlining: Firing Fuel Oil*

Until the 40 CFR Part 63, Subpart DDDDD compliance date for these boilers, the emission limits identified in this section shall apply to EB1 and EB2 when

firing fuel oil. On and after the Subpart DDDDD compliance date, these limits shall continue to apply to EB1; they will only apply to EB2 if fuel oil is being fired in a natural gas curtailment situation.

GNP East accepts streamlining for PM requirements for EB1 and EB2. Applicable emission standards, the origin and authority of each standard, and the emission limits and associated averaging periods after streamlining, as appropriate, are presented here. The origin and authority of the most stringent limit upon which the final emission limit is based is presented in **bold type** in the following table.

Note: Air emission license A-405-70-A-I (11/13/2002) included restrictions in fuel oil sulfur content to meet BPT for PM_{10} and SO_2, due to predicted exceedances of the air quality standards using air dispersion models. BPT limits fuel sulfur content to not exceed 1.5% when either EB1 or EB2 is in operation. The BPT fuel sulfur content limitation is 0.7% sulfur by weight for the two boilers if EB1 and EB2 are operating concurrently.

Pollutant, Units	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits from *Each* Boiler
PM, lb/MMBtu	0.20 lb/MMBtu	06-096 CMR 103, Section 2(A)(1)	0.18 lb/MMBtu when either EB1 or EB2 is firing 1.5% sulfur fuel oil, and 0.09 lb/MMBtu when both EB1 and EB2 are firing 0.7% sulfur fuel oil; 1-hour average
	0.18 lb/MMBtu when either EB1 or EB2 is firing 1.5% sulfur fuel oil, and 0.09 lb/MMBtu when both EB1 and EB2 are firing 0.7% sulfur fuel oil	**BPT A-405-70-A-I (11/13/2002)**	
PM, lb/hr	33.3 lb/hr firing 0.7% sulfur fuel oil 66.6 lb/hr firing 1.5% sulfur fuel oil	**06-096 CMR 140, BPT**	33.3 lb/hr firing 0.7% sulfur fuel oil; 1-hour average 66.6 lb/hr firing 1.5% sulfur fuel oil; 1-hour average
PM_{10}, lb/MMBtu	0.18 lb/MMBtu when either EB1 or EB2 is firing 1.5% sulfur fuel oil, and 0.09 lb/MMBtu when both EB1 and EB2 are firing 0.7% sulfur fuel oil	**BPT A-405-70-A-I (11/13/2002)**	0.18 lb/MMBtu when either EB1 or EB2 is firing 1.5% sulfur fuel oil, and 0.09 lb/MMBtu when both EB1 and EB2 are firing 0.7% sulfur fuel oil; 1-hour average
PM_{10}, lb/hr	33.3 lb/hr firing 0.7% sulfur fuel oil 66.6 lb/hr firing 1.5% sulfur fuel oil	**06-096 CMR 140, BPT**	33.3 lb/hr firing 0.7% sulfur fuel oil; 1-hour average 66.6 lb/hr firing 1.5% sulfur fuel oil; 1-hour average

Pollutant, Units	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits from *Each* Boiler
SO_2, lb/hr	580.9 lb/hr from each boiler when firing 1.5% sulfur fuel oil, and 271.1 lb/hr from each boiler when both are firing 0.7% sulfur fuel oil. (3-hr block average basis)	**06-096 CMR 140, BPT** [based on 157S lb/10^3 gal, from AP-42 Table 1.3-1 dated 5/10]	580.9 lb/hr from each boiler when firing 1.5% sulfur fuel oil, and 271.1 lb/hr from each boiler when both are firing 0.7% sulfur fuel oil. 3-hr block average basis
NO_x, lb/MMBtu	0.40 lb/MMBtu	**06-096 CMR 140, BPT** [based on 40 lb/10^3 gal, from AP-42 Table 1.3-1 dated 5/10]	0.40 lb/MMBtu, 1-hour average
NO_x, lb/hr	98.7 lb/hr		98.7 lb/hr, 1-hour average
CO, lb/hr	12.3 lb/hr	**06-096 CMR 140, BPT** [based on 5 lb/10^3 gal, from AP-42 Table 1.3-1 dated 5/10]	12.3 lb/hr, 1-hour average
VOC, lb/hr	1.9 lb/hr	**06-096 CMR 140, BPT** [based on 0.76 lb/10^3 gal, from AP-42 Table 1.3-3 dated 5/10]	1.9 lb/hr, 1-hour average
Visible Emissions	30% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a three-hour period	**06-096 CMR 101 Section 2(B)(1)(a)(i)**	30% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a three-hour period

7. *Fuel Oil Sulfur Content*

#6 Fuel Oil

Prior to January 1, 2018, #6 fuel oil fired in EB1 and EB2 shall conform to the sulfur contents specified above for the corresponding specific firing configurations. Per 38 MRSA §603-A(1) and (2), beginning January 1, 2018, the facility shall fire #6 fuel oil with a maximum sulfur content of 0.5% by weight.

#2 Fuel Oil

Prior to July 1, 2016, the #2 fuel oil fired in EB1 and EB2 shall be ASTM D396 compliant #2 fuel oil (maximum sulfur content of 0.5% by weight). Per 38 MRSA §603-A(2)(A)(3), beginning July 1, 2016, the facility shall fire #2 fuel oil with a maximum sulfur content of 0.005% by weight (50 ppm); and

beginning January 1, 2018, the facility shall fire #2 fuel oil with a maximum sulfur content of 0.0015% by weight (15 ppm).

8. *Emission Limits and Streamlining: EB2 Firing Natural Gas*
Emission limits for EB2 firing natural gas were established in A-305-77-2-A (January 23, 2013) as BACT emission limits, based on the natural gas firing rate of 372,000 scf/hour and the following:

PM, PM_{10} – 0.05 lb/MMBtu; burner vendor data
$PM_{2.5}$ – 0.05 lb/MMBtu; burner vendor data
SO_2 – 0.0006 lb/MMBtu; AP-42, Table 1.4-2 (dated 7/98)
NO_x – 0.24 lb/MMBtu; burner vendor data
CO – 0.24 lb/MMBtu; burner vendor data
VOC – 0.021 lb/MMBtu; burner vendor data
Opacity – 06-096 CMR 101

The BACT emission limits for EB2 firing natural gas are the following:

Unit	PM lb/hr	PM_{10} lb/hr	$PM_{2.5}$ lb/hr	SO_2 lb/hr	NO_x lb/hr	CO lb/hr	VOC lb/hr
Boiler EB2 (374.9 MMBtu/hr) natural gas	18.75	18.75	18.75	0.23	90.0	90.0	7.87

When firing natural gas, visible emissions from EB2 shall not exceed 10% opacity on a six-minute block average basis, except for no more than one six-minute block average in a three-hour period.

9. *Emission Limit Compliance Methods*
Compliance with emission limits associated with EB1 and EB2 shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods and frequencies as approved by the Department.

Pollutant	Emission Limits	Compliance Method	Frequency
PM, PM_{10}	lb/MMBtu and lb/hr limits	**PM:** Stack Testing 40 CFR Part 60, App. A, Method 5 **PM_{10}:** Stack Testing 40 CFR Part 60, App. A, Method 5 or EPA Test Method 201 or 201A	***PM:** Once every five years, or more frequently as requested by the Department **PM_{10}:** As requested
SO_2	lb/MMBtu and lb/hr limits	40 CFR Part 60, App. A, Method 6	Upon request by the Department
NO_x	lb/MMBtu and lb/hr limits	40 CFR Part 60, App. A, Method 7	
CO	lb/hr limits	Stack Testing: 40 CFR Part 60, Appendix A, Method 10	As requested

Pollutant	Emission Limits	Compliance Method	Frequency
VOC	lb/hr limits	Stack Testing: 40 CFR Part 60, Appendix A, Method 25 or 25A	As requested

Stack Testing for Particulate Matter

The previous license had a requirement to stack test EB1 and EB2 for particulate matter once every two years. Since the issuance of the initial Part 70 air emission license, the statutory requirement of 38 M.R.S.A. §589, §§2 has been revised as follows:

> A person is not required to conduct stack tests for particulate matter on a source monitored by a continuous monitoring device for opacity as specified by 40 Code of Federal Regulations, Part 60, Appendix B, specification 1 or appropriate surrogate parameters as required by the commissioner more frequently than once every 5 years unless visible emissions, operating parameters, or other information indicates the source may be operating out of compliance with any applicable emission standard, or unless there are more stringent federal requirements. If visible emissions, operating parameters, or other information indicates potential noncompliance with an air emission standard, or if there are more stringent federal requirements, the Department may require additional stack tests.

These units are not required to monitor for opacity under 06-096 CMR 117, *Source Surveillance*, because of the 30% annual capacity factor limit. However, stack testing for PM every two years is also not warranted because of the annual capacity factor limit. The Department finds that revising the timeframe for PM stack testing to align with the 38 M.R.S.A. §589, Sub-section 2 revision is appropriate and correlates with BPT for EB1 and EB2. The revised timeframe for PM stack testing for EB1 and EB2 is incorporated into this renewal.

10. *Periodic Monitoring*

Periodic monitoring requirements associated with EB1 and EB2 shall include the following, whenever the equipment is operating.

Parameter	Units	Monitoring Tool/Method	Frequency
#6 and #2 fuel oil firing rates	Gallons/hour	Flow meter	Continuously, recorded every 15 minutes
#6 and #2 fuel oil used	Gallons	Fuel flow meter	Monthly and 12-month rolling total
#6 and #2 fuel oil sulfur content	Percent by weight	Fuel receipts from supplier	As fuel is purchased

Parameter	Units	Monitoring Tool/Method	Frequency
Natural gas firing rate (EB2)	scf/hour	Fuel flow meter	Continuously, recorded every 15 minutes
Natural gas used (EB2)	MMscf	Fuel flow meter	Monthly and 12-month rolling total

11. *Parameter Monitors*

There are currently no parameter monitoring requirements associated with EB1 and EB2.

12. *Annual Average Capacity Factor*

According to 06-096 CMR 117, *Source Surveillance – Emissions Monitoring,* boilers that are operated at an annual average capacity factor of less than 30%, are projected to remain at less than 30%, and are limited to such by a federally enforceable license condition are not required to continuously monitor for opacity or for nitrogen oxides (NO_x) emissions. Annual average capacity factor is the ratio of the actual heat input to a steam generating unit from fuels fired during a calendar year to the potential heat input to the unit if it had been operating 8760 hours per year at its maximum steady state design heat input capacity. The operation of EB1 and EB2 is limited to an annual average capacity factor of less than 30%.

Fuel use at maximum capacity without operational limits would be 21,608,000 gallons per year fired in each of these two boilers. Operating at 30% capacity, No. 6 fuel oil use in each of these two boilers would be 6,482,400 gallons per year. Thus, fuel use in each boiler EB1 and EB2 shall be less than this amount in order to meet the criteria for the monitoring exemptions as specified in 06-096 CMR 117.

Per the NSR license for conversion of EB2 to natural gas, GNP East is limited to fuel oil usage in EB2 of 4,998,905 gallons/year of No. 6 fuel oil and No. 2 fuel oil, combined.

Operating at 30% capacity and firing only natural gas, natural gas usage in EB2 would be approximately 977.6 MMscf/year. The facility has licensed a natural gas usage limit of 795,038 MMBtu/year, the equivalent of approximately 779.5 MMscf/year. Both of the fuel use caps for EB2 are less than the 30% cap; the limits meet the requirements of 06-096 CMR 117, *Source Surveillance – Emissions Monitoring,* for limiting the annual average capacity factor of the unit.

Until the 40 CFR Part 63, Subpart DDDDD compliance date, GNP East shall maintain records of fuel use for EB1 and EB2 for each calendar year to document the following:

a. Fuel oil use in EB1 less than 6,482,400 gallons per year;
b. fuel oil use in EB2 less than 4,998,905 gallons/year if firing only fuel oil in EB2;
c. Natural gas use in EB2 of less than 779.5 MMscf/year if firing only natural gas in EB2; and
d. A combined use of fuels in EB2 not to exceed the following:
   (1) 30% of the maximum annual potential of the boiler in MMBtu/year; and
   (2) the tons/year limits as contained in this license.

On and after the 40 CFR Part 63, Subpart DDDDD compliance date, GNP East shall maintain records to document the following:

a. Fuel oil use in EB1 less than 2,160,800 gallons per year;
b. No fuel oil fired in EB1 unless for situations of natural gas curtailment or other fuel oil use as allowed under Subpart DDDDD's definition of "Unit Designed to Burn Gas 1"; and
c. Natural gas use in EB2 of less than 779.5 MMscf/year.

13. *Continuous Emission Monitoring Systems (CEMS)*

Both boilers are currently operated at an annual capacity factor of less than 30%, restricted and documented through a licensed annual fuel use limit for each boiler. Per 06-096 CMR 117, *Source Surveillance*, boilers that are required by a federally enforceable license condition to remain at a capacity factor of less than 30% are not required to install Continuous Opacity Monitors (COMS) or NO_x Continuous Emission Monitors (CEMS). [06-096 CMR 117 (B)(2) and (C)(1)(b)] There are currently no requirements for CEMS for EB1 and EB2.

G. Power Boiler #3 (EB3)

1. *Introduction*

Power Boiler EB3, installed in 1980, was manufactured by Foster-Wheeler in 1980 with a maximum design heat input of 498 MMBtu/hr firing multiple fuels, including biomass, No. 6 fuel oil, and No. 2 fuel oil (as an optional start-up fuel). The 498 MMBtu/hour firing rate is achievable firing biomass-only at 72.8 tons/hour. Biomass includes wood, bark, paper cores and other paper related waste products, primary clarifier sludge, recycle plant sludge, and telephone poles.

Power Boiler EB3 was installed in 1980 under the authority of EPA Prevention of Significant Deterioration (PSD) Permit Number 006-109 ME 03, issued May 1, 1979. According to that original construction permit, the licensed maximum heat input from firing fuel oil alone is 240 MMBtu/hour at

1550 gal/hour. The corresponding fuel oil use limit for EB3 is 13,578,000 gallons per year.

Low NO_x burners were installed in EB3 in 1997. Particulate matter emissions are controlled by mechanical dust collectors and an electrostatic precipitator (ESP). EB3 has a COM system and a NO_x CEM system. Emissions exit through a 269-ft stack.

2. *NSPS*

The potential applicability of New Source Performance Standards (NSPS) to EB3 is presented in the following table:

NSPS 40 CFR Part 60…	Applicability	Justification	Citation
Subpart D, *Standards of Performance for Fossil-Fuel-Fired Steam Generators*	Does not apply.	EB3 has a maximum heat input firing fossil fuel of less than 250 MMBtu/hr.	40 CFR Part 60, §60.40 (a)(2)
Subpart Da, *Standards of Performance for Electric Utility Steam Generating Units*	Does not apply.	EB3 is not an "electric utility steam-generating unit," as defined in 40 CFR Part 60, § 60.41Da, *Definitions*.	40 CFR Part 60, §60.41
Subpart Db, *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units*	Does not apply.	EB3 was installed prior to this subpart's applicability date of June 19, 1984.	40 CFR Part 60, §60.40b(a)

3. *NESHAP: 40 CFR Part 63 Subpart DDDDD: Major Source Boiler MACT*

Under 40 CFR Part 63, Subpart DDDDD, the Boiler MACT regulation, Boiler EB3 is operated as a Unit Designed to Burn Solid Fuel, Stoker/Sloped Grate to Burn Wet Biomass. As such, this boiler is subject to the requirements described below.

a. Emission Limits and Work Practice Standards

Operation Other Than Startup and Shutdown

On and after the compliance date for this boiler under Subpart DDDDD, GNP East shall comply with the following emission limits for EB3, except during startup and shutdown:

Pollutant	Emission Limit	Origin
Filterable PM	0.037 lb/MMBtu	#7 of Table 2 to 40 CFR Part 63, Subpart DDDDD, *Stokers/sloped grate/others designed to burn wet biomass fuel*

Pollutant	Emission Limit	Origin
Hg	5.7E-06 lb/MMBtu	#1 of Table 2 to 40 CFR Part 63, Subpart DDDDD, *Units in all subcategories designed to burn solid fuel*
HCl	0.022 lb/MMBtu	
CO	1,500 ppmv (dry) @ 3% O_2, 3-run average (if compliance is demonstrated via emissions testing); or 720 ppmv (dry) @ 3% O_2, 30-day rolling average (if compliance is demonstrated via a CO CEMS)	#7 of Table 2 to 40 CFR Part 63, Subpart DDDDD, *Stokers/sloped grate/others designed to burn wet biomass fuel*
Visible Emissions	Not to exceed 10% opacity on a daily block average basis, monitored with a continuous opacity monitoring system (COMS)	#4a. of Table 4 to 40 CFR Part 63, Subpart DDDDD, *Electrostatic precipitator control on units not using a PM CPMS*

Operation during Startups and Shutdowns

For boiler EB3 and according to 40 CFR Part 63, Subpart DDDDD, the definitions of *startup* and *shutdown* are the following:

Startup means either the first-ever firing of fuel in a boiler for the purpose of supplying steam or heat for heating and/or producing electricity, or for any other purpose, or the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the steam or heat from the boiler is supplied for heating, and/or producing electricity, or for any other purpose.

Shutdown means the cessation of operation of a boiler for any purpose. Shutdown begins either when none of the steam from the boiler is supplied for heating and/or producing electricity, or for any other purpose, or at the point of no fuel being fired in the boiler, whichever is earlier. Shutdown ends when there is no steam and no heat being supplied and no fuel being fired in the boiler.

During periods of startup and shutdown, GNP East shall operate EB3 in accordance with the following work practice standards. Startup ends when steam or heat is supplied for any purpose.

(1) All continuous monitoring systems (CMS) shall be operated during periods of startup and shutdown.

(2) Unless the conditions of (3) below are complied with, EB3 shall be started up using one or a combination of the following clean fuels: distillate oil, ultra-low sulfur diesel fuel, fuel oil-soaked rags, kerosene, paper, and cardboard. Note: Other clean fuels are allowed

for startup under Subpart DDDDD which EB3 is not currently licensed to burn.

(3) If EB3 is started firing biomass and/or #6 fuel oil, emissions must be vented to the main stack and the mechanical dust collectors and the ESP must be in operation.

(4) While firing biomass and/or #6 fuel oil during shutdown, emissions shall be vented to the main stack and the mechanical dust collectors and the ESP shall continue to be in operation.

(5) Monitoring data shall be collected during periods of startup and shutdown, as specified in 40 CFR §63.7535(b). Records shall be maintained and reports provided concerning activities and periods of startup and shutdown, as specified in 40 CFR §63.7555.

[#5 and #6 of Table 3 to 40 CFR Part 63, Subpart DDDDD]

b. Tune-Ups

GNP East shall complete an initial tune-up of EB3 according to the procedures in § 63.7540(a)(10)(i) through (vi) no later than January 31, 2016, or the initial tune-up due date established through the facility's possible compliance date extension request. [40 CFR §63.7510(e)] Subsequent tune-ups must be conducted annually. [#3 of Table 3 to 40 CFR Part 63, Subpart DDDDD]

c. Fuel Analyses

GNP East shall conduct monthly fuel analyses, with the possibility of the frequency being reduced to quarterly if 12 months of continuous samples show less than 75% of the compliance limit. The monthly requirement would recommence if any quarterly sample is above 75% of the limit, per §63.7515(e).

d. Performance Testing

GNP East shall conduct initial and annual performance testing on EB3 unless performance testing indicates emission levels below 75% of required levels for two consecutive years, at which time the required testing frequency may be reduced to every third year. Boiler parameters must remain unchanged during that time, and emission levels above 75% of the limit will cause testing to return to an annual basis.

Demonstration of compliance shall be emissions testing according to the EPA test methods prescribed in Table 5 to 40 CFR 63, Subpart DDDDD. The operating load of Boiler #3 must be maintained such that it does not

exceed 110% of the highest hourly average operating load recorded during the most recent performance test. [#8 of Table 4 to 40 CFR Part 63, Subpart DDDDD]

e. Reporting

GNP East shall fulfill the semi-annual compliance reporting requirements of 40 CFR Part 63, Subpart DDDDD, § 63.7550(b) and Table 9 of Subpart DDDDD.

4. *Emission Limits and Streamlining*

GNP East accepts streamlining for PM, requirements for EB3. Applicable emission standards, the origin and authority of each standard, and the emission limits and associated averaging periods after streamlining, as appropriate, are presented here. The origin and authority of the most stringent limit upon which the final emission limit is based is presented in **bold type** in the following table.

Pollutant, Units	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM, lb/MMBtu	0.30 lb/MMBtu	06-096 CMR 103, Section 2(A)(3)(b)	0.15 lb/MMBtu, 1-hour average
	0.15 lb/MMBtu	**EPA PSD Permit 006-109-ME 03 (May 1, 1979)**	
PM, lb/hr	74.7 lb/hr	**06-096 CMR 140, BPT** [based on firing biomass at 498 MMBtu/hr]	74.7 lb/hr; 1-hour average
PM_{10}, lb/MMBtu	0.15 lb/MMBtu	**EPA PSD Permit 006-109-ME 03 (May 1, 1979)**	0.15 lb/MMBtu, 1-hour average
PM_{10}, lb/hr	74.7 lb/hr	**06-096 CMR 140, BPT** [based on firing biomass at 498 MMBtu/hr]	74.7 lb/hr; 1-hour average
SO_2, lb/hr	376.8 lb/hr when firing oil, 3-hr block average basis	**06-096 CMR 140, BPT** [based on a fuel sulfur content of 1.5% by weight and a maximum heat input firing oil of 240 MMBtu/hr]	376.8 lb/hr when firing oil, 3-hr block average basis
NO_x, lb/MMBtu	0.40 lb/MMBtu	**06-096 CMR 138 (4)(3)**	0.40 lb/MMBtu, 24-hour daily block average
NO_x, lb/hr	199.2 lb/hr	**06-096 CMR 140, BPT**	199.2 lb/hr, 1-hour average
CO, lb/hr	298.8 lb/hr	**06-096 CMR 140, BPT** [based on 0.60 lb/MMBtu, from AP-42 Table 1.6-2 dated 9/03]	298.8 lb/hr, 1-hour average

Pollutant, Units	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
VOC, lb/hr	8.5 lb/hr	**06-096 CMR 140, BPT** [based on 0.017 lb/MMBtu, from AP-42 Table 1.6-3 dated 9/03]	8.5 lb/hr, 1-hour average
Visible Emissions	30% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a three-hour period	**06-096 CMR 101 §2(B)(1)(e)**	30% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a three-hour period

5. *Emission Limit Compliance Methods*
Compliance with emission limits associated with EB3 shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods and frequencies as approved by the Department.

Pollutant	Emission Limits	Compliance Method	Frequency
PM, PM_{10}	lb/MMBtu and lb/hr limits	**PM:** Stack Testing 40 CFR Part 60, App. A, Method 5 **PM_{10}:** Stack Testing 40 CFR Part 60, App. A, Method 5 or EPA Test Method 201 or 201A	**PM:** Once every five years, or more frequently as requested by the Department **PM_{10}:** As requested
SO_2	lb/hr limits	40 CFR Part 60, App. A, Method 6	Upon request by the Department
NO_x	lb/MMBtu	NOx CEMS	24-hour daily block average
	lb/hr limits	Stack Testing: 40 CFR Part 60, Appendix A, Method 7	As requested
CO	lb/hr limits	Stack Testing: 40 CFR Part 60, Appendix A, Method 10	As requested
VOC	lb/hr limits	Stack Testing: 40 CFR Part 60, Appendix A, Method 25 or 25A	As requested

6. *Periodic Monitoring*
Whenever EB3 is operating, GNP East shall periodically monitor and record parameters for the unit and its associated air pollution control equipment, as indicated in the following table:

Parameter	Units of Measure	Monitoring Tool/Method	Frequency
Fuel oil use	Gallons	Fuel flow meter	Daily, monthly, and 12-month rolling total
Fuel oil sulfur content	Percent, by weight	Fuel receipts from supplier	As fuel is purchased

Parameter	Units of Measure	Monitoring Tool/Method	Frequency
Waste oil use	Gallons	Estimation of amount collected and burned	Daily, monthly, and 12-month rolling total
Operating time	Hours	Boiler control system (DCS)	Daily, monthly, and calendar year

7. *Parameter Monitoring*
For the ESP associated with EB3, GNP East shall monitor and record the operating parameters, as specified in the following table:

Parameter	Units of Measure	Monitoring Tool/Method	Frequency of Monitoring and Recording
Primary Voltage	Volts or kilovolts	Volt meter	Monitor Continuously, Record once per shift
Secondary Voltage	Volts or kilovolts	Volt meter	
Primary Current	Amps	Amp meter	
Secondary Current	Amps	Amp meter	Monitor Continuously, Record once per shift
Gas pressure drop across ESP	Pounds per square inch (gauge)	Pressure gauges	
Inlet gas temperature	Degrees Fahrenheit	Thermocouple	
Outlet gas temperature	Degrees Fahrenheit	Thermocouple	

8. *CEMS and COMS*
Documentation shall be maintained that all CEMs are continuously accurate, reliable, and operated in accordance with 06-096 CMR 117, 40 CFR Part 51 Appendix P, and 40 CFR Part 60, Appendices B and F.

The following are requirements for continuous monitors and their origin and authority as pertaining to EB3.

a. *Source Surveillance*, 06-096 CMR 117, contains an applicable requirement to monitor opacity and nitrogen dioxide emissions.

b. *NO_x RACT*, 06-096 CMR 138, contains an applicable requirement to monitor NO_x lb/MMBtu emissions on a 24-hour daily block arithmetic average.

c. Boiler MACT (Subpart DDDDD) requires a CO CEMS on EB3 as of January 31, 2016.

Based on the above, GNP East shall operate a CEMS which provides data to calculate NO_x lb/MMBtu and O_2 ppm from EB3. Opacity from the stack shall be monitored by a COMS. A CO CEMS shall be installed and in continuous operation as of January 31, 2016, or an alternate date as allowed under 40 CFR Part 63, Subpart DDDDD.

9. *Stack Testing for Particulate Matter*
The initial Part 70 air emission license for GNP East contained a requirement to stack test EB3 for particulate matter once every two years. Since the issuance of the initial Part 70 license, the statutory requirement of 38 M.R.S.A. §589, Sub-section 2 has been revised, as quoted in subsection A (for EB1 and EB2) above. The revised timeframe for PM stack testing is incorporated into this renewal for EB3, since this unit is required to monitor for opacity. GNP East shall conduct stack testing for particulate matter once every five years on EB3 unless otherwise directed by the Department, until such time as the performance testing requirements of 40 CFR Part 63, Subpart DDDDD are mandatory; at that time, the more stringent performance testing frequency requirements shall supersede other specified frequencies of testing.

H. Natural Gas Line Heaters

GNP East utilizes two Grit Industries Model 770 or equivalent Natural Gas Line Heaters rated at 0.77 MMBtu/hour each firing natural gas to heat the fuel before it is transferred to the boiler. These units are below the Department's threshold levels for inclusion in the air emission license, but there are federal requirements according to 40 CFR Part 63, Subpart DDDDD, *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters.* Because these units under Subpart DDDDD are considered new process heater Units Designed to Burn Gas 1 with a maximum heat input capacity $\leq$ 5 MMBtu/hour, Subpart DDDDD requires a tune-up of each Natural Gas Line Heater every five years and as specified in 40 CFR §63.7540. [#1 in Table 3 to Subpart DDDDD of 40 CFR Part 63]

I. Emergency Generators and Engines

Generators, reciprocating internal combustion engines (RICE), are subject to both state and federal standards and limits. GNP East has several emergency back-up generators and engines pumps on site to allow safe and environmentally protective operation and/or shut-down of key mill systems in the event of power outages.

The Fire Protection Pump (EGR-V6) was manufactured and installed in 1998. It is a Caterpillar model 3412 with a maximum input rating of 4.69 MMBtu/hr (660 HP). The Emergency Lift Pump (EWWTP-S2) was installed in 1974 with a design capacity of 2.1 MMBtu/hr (225 HP). Both of these units fire diesel fuel with a maximum sulfur content of 0.0015% by weight.

The use of EGR-V6 and EWWTP-S2 is restricted to no more than 500 hours per year of operation for each unit. This restriction satisfies NO_x RACT requirements for the Emergency Lift Pump (EWWTP-S2) as established in air emission license amendment A-405-71-E-A (May 7, 1996).

NSPS

Due to the dates of manufacture of EGR-V6 and EWWTP-S2, they are not subject to NSPS 40 CFR Part 60, Subpart IIII—*Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.*

BPT Findings

The BPT emission limits for EGR-V6 and EWWTP-S2 are based on the following:

PM, PM_{10} – 0.12 lb/MMBtu for EGR-V6 (06-096 CMR 103, for fuel burning units greater than 3.0 MMBtu/hour)
– 0.31 lb/MMBtu from AP-42 Table 3.3-1 (dated 10/96) for EWWTP-S2 (smaller than 3.0 MMBtu/hour and thus not subject to 06-096 CMR 103)

SO_2 – 0.0015 lb/MMBtu based on firing 0.0015% sulfur fuel
NO_x – 4.41 lb/MMBtu, AP-42, Table 3.3-1 (dated 10/96);
CO – 0.95 lb/MMBtu, AP-42, Table 3.3-1 (dated 10/96);
VOC – 0.36 lb/MMBtu, AP-42, Table 3.3-1 (dated 10/96);
Opacity – 06-096 CMR 101, BPT

Emissions from EGR-V6 and EWWTP-S2 shall not exceed the following:

	EGR-V6 4.69 MMBtu/hr (660 HP)	**EWWTP-S2** 2.1 MMBtu/hr (225 HP)
Pollutant	**lb/hr**	**lb/hr**
PM, PM_{10}	0.6	0.7
SO_2	0.01	0.003
NO_x	20.7	9.3
CO	4.5	2.0
VOC	1.7	0.8

Visible emissions from either engine EGR-V6 or EWWTP-S2 shall not exceed 20% opacity on a six-minute block average, except for no more than two six-minute block averages in a three-hour period.

NESHAP: 40 CFR Part 63, Subpart ZZZZ

The federal regulation 40 CFR Part 63, Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines,* is applicable to GNP East's emergency generators, including EGR-V6, EWWTP-S2, and the Instrument Emergency Engine (firing LPG, with a maximum rating of 8.3 HP, approximately 0.06 MMBtu/hour). The only RICE exempt from Subpart ZZZZ requirements are existing emergency engines located at residential, institutional, or commercial area sources, as defined in Subpart ZZZZ. The units at the GNP East facility are considered existing, emergency, stationary RICE at a major HAP source that are not subject to NSPS regulations. EPA's August 9, 2010 memo (*Guidance Regarding Definition of Residential, Commercial, and Institutional Emergency Stationary RICE in the NESHAP for Stationary RICE*) specifically does not exempt these units from the federal requirements.

1. Emergency Definition (40 CFR §63.4243)

   Emergency stationary RICE means any stationary reciprocating internal combustion engine that meets all of the following criteria:

   a. The stationary RICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted; stationary RICE used to pump water in the case of fire or flood; etc.

   b. Paragraph (a) above notwithstanding, the emergency stationary RICE may be operated for any combination of the purposes specified below for a maximum of 100 hours per calendar year:

      (1) Maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government; the manufacturer; the vendor; the regional transmission organization or equivalent balancing authority and transmission operator; or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

      (2) When the Reliability Coordinator – or other authorized entity as determined by the Reliability Coordinator – has declared an Energy

Emergency Alert Level 2 ("Reliability Coordinator" and "Energy Emergency Alert Level 2" as defined in the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, *Capacity and Energy Emergencies*).

(3) For periods when voltage or frequency deviates below standard voltage or frequency by 5% or greater.

c. Paragraphs (a) and (b) above notwithstanding, emergency stationary RICE may be operated for up to 50 hours per calendar year in non-emergency situations. These 50 hours are counted as part of the 100 hours per calendar year for maintenance checks and readiness testing, emergency demand response, and periods of voltage deviation or low frequency, as provided in paragraph (b) above.

The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity, except as follows: The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(1) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.

(2) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(3) The dispatch follows reliability, emergency operation, or similar protocols that follow specific NERC, regional, state, public utility commission, or local standards or guidelines.

(4) The power is provided only to the facility itself or to support the local transmission and distribution system.

(5) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission, or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[40 CFR §63.4243(d)(3)]

GNP East's emergency generators shall be limited to the usage outlined in 40 CFR §63.6640(f) and therefore may be classified as existing emergency stationary RICE as defined in 40 CFR Part 63, Subpart ZZZZ. Failure to comply with all of the requirements listed in 40 CFR §63.6640(f) may cause these engines to not be considered emergency engines and subject to all requirements for non-emergency engines.

In accordance with 40 CFR Part 63, Subpart ZZZZ, EGR-V6 is an emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions. There are no applicable emission limitations or operating limitations identified in this Subpart for such a unit. [40 CFR §63.6600(c), §63.6600(a), §63.6600(d), and Tables 1b and 2b to Subpart ZZZZ of 40 CFR Part 63] However, some requirements specified in Subpart ZZZZ for the other two emergency engines are required in this license for EGR-V6 as Best Practical Treatment under the authority of 06-096 CMR 140, BPT.

2. 40 CFR Part 63, Subpart ZZZZ Requirements, required as of May 3, 2013

Operating Limitations*	**(40 CFR §63.6600, 6602 (a) and Table 2(c)) and 06-096 CMR 140, BPT**
EGR-V6, EWWTP-S2 and Instrument Emergency Generator	- Change oil and filter every 500 hours of operation or annually, whichever comes first; - Inspect the air cleaner every 1000 hours of operation or annually, whichever comes first, and replace as necessary; and - Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

* Note: Due to the 500 hour operation limit on each generator, the inspections and oil/filter changes shall be performed annually to meet the requirements of 40 CFR Part 63, Subpart ZZZZ and 06-096 CMR 140, BPT.

The units EWWTP-S2 and the Instrument Emergency Generator shall be operated and maintained according to the manufacturer's emission-related written instructions; or GNP East shall develop a maintenance plan which provides to the extent practicable for the maintenance and operation of the engines in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR §63.6625(e)]

For the units EWWTP-S2 and the Instrument Emergency Generator, GNP East has the option of utilizing an oil analysis program which complies with the requirements of §63.6625(i) in order to extend the specified oil change requirement. If this option is used, GNP East must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for each engine. The analysis program must be part of the maintenance plan for each engine. [40 CFR§63.6625(i)]

A non-resettable hour meter shall be installed and operated on EGR-V6, EWWTP-S2, and on the Instrument Emergency Generator. [40 CFR §63.6625(f) and 06-096 CMR 140, BPT]

During periods of startup, the facility must minimize each engine's time spent at idle and minimize each engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply to units EWWTP-S2 and the Instrument Emergency Generator. [40 CFR §63.6625(h) and 40 CFR Part 63, Subpart ZZZZ Table 2c]

The generators shall each be limited to 100 hours/year for maintenance checks and readiness testing, emergency demand response, and periods of voltage or frequency deviation from standards. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity unless the conditions in §63.6640(f) are met). [40 CFR §63.6640(f)]

GNP East shall keep records that include maintenance conducted on the units EWWTP-S2 and the Instrument Emergency Generator and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the hours spent for emergency operation, including what classified the operation as emergency, and the hours spent for non-emergency operation. If the generators are operated during a period of demand response or deviation from standard voltage or frequency, or for supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f)(1), (2) and/or (3), GNP East must keep records of the notification of the emergency situation, and the date, start time, and end time of each generator operated for these purposes. [40 CFR §63.6655(e) (excluding EGR-V6); and §63.6655(f) (all engines)]

If GNP East operates or is contractually obligated to be available for more than 15 hours per calendar year in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f)(4)(ii), the facility shall submit an annual report containing the information in §63.6650(h)(1)(i) through (ix). The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year. The annual report must be submitted electronically using the

Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form is not available in CEDRI at the time that the report is due, the written report must be submitted to the following address:

Director, Office of Ecosystem Protection
U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Boston, MA 02109-3912

[40 CFR §63.6650(h)]

Emission Limit Compliance Methods
Compliance with the emission limits associated with Generators EGR-V6 and EWWTP-S2 shall be demonstrated in accordance with the appropriate test methods upon request of the Department.

Compliance Assurance Monitoring
CAM is not applicable to Generators EGR-V6, EWWTP-S2, or the Instrument Emergency Generator.

Periodic Monitoring
GNP East shall monitor and record parameters for Generators EGR-V6, EWWTP-S2, and the Instrument Emergency Generator as indicated in the following table whenever the equipment is operating.

Feature to Monitor	Units	Monitoring Tool/Method	Frequency
Fuel Oil Sulfur Content	% by weight	Fuel Receipts	As fuel is purchased
Operating Time	Hours	Hour Meter	Monthly and 12-month rolling total

Parameter Monitors, CEMS, and COMS
There are no Parameter Monitors, CEMS, or COMS required for Generators EGR-V6, EWWTP-S2, and the Instrument Emergency Generator.

J. Fugitive PM Emissions

Visible emissions from any fugitive emission source, including stockpiles, roadways, etc., shall not exceed 20% opacity, except for no more than five minutes in any one-hour period. Compliance shall be determined by an aggregate of the individual fifteen-second opacity observations which exceed 20% in any one hour. [06-096 CMR 101]

K. Grinder Room (EGR) and Screen Room (ESR)

The grinder room is part of the groundwood mill and includes all equipment from the live bin through the bull screen chest. The screen room is part of the groundwood mill and includes hydropulpers, screens, cleaners, refiners, presses, deckers, hydrosieves, and chests.

Neither the grinder room nor the screen room uses chlorine or chlorine dioxide to brighten pulp, and there are no applicable requirements under 40 CFR Part 63, Subpart S, *National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry*, for grinder room or screen room emissions.

EPA reviewed the type and quantities of emissions emitted from mechanical pulping systems (groundwood mills) while developing the Maximum Achievable Control Technology (MACT, 40 CFR Part 63) standards. It was determined that mechanical pulping systems do not emit significant quantities of HAPs, and there are no reasonable control technologies for controlling HAPs from woodyards, grinder rooms, or screen rooms. Therefore, this equipment is not required to be reviewed for MACT under section 112(g) of the CAA.

Emissions of VOC from the Grinder Room and Screen Room have been estimated using the emission factor 1.156 lb VOC per air dried ton of pulp (ADTP) produced[1]. At the maximum production capacity of 310,000 cords/year and a conversion factor of 1.5 cord of pulpwood per ton of wood pulp[2], maximum calculated VOC emissions from the groundwood process are 119.5 tons/year. These emissions have not been quantified in the previous air emission license, but they were reported in the required annual emissions reporting based on the actual ADTP produced for each reported year. Thus, this is not an increase in emissions from GNP East, but rather the inclusion in the air emission license of already existing emissions.

[1] from the National Council for Air and Stream Improvement (NCASI) (December 2010 for FF (spruce) Stone Groundwood System (softwood))

[2] from the USFS publication, *An Analysis of the Timber Situation in the United States: 1989-2040* (Haynes 1990).

In the facility's VOC RACT determination, the Department concluded that add-on controls for VOC emissions from the Grinder Room and Screen Room are not economically justifiable; therefore, operation of the Grinder Room and Screen Room operations according to best management practices is determined to meet VOC RACT requirements. There are no additional controls required at this time for the Grinder Room or the Screen Room.

L. Recycle Facility (ERCY)

The recycle facility is a secondary fiber pulping system which includes pulpers, screens, cleaners, washers, clarifiers, mixers, and storage chests. The recycle facility does not use chlorine or chlorine dioxide to brighten pulp, and there are no applicable requirements under 40 CFR Part 63, Subpart S for the recycle facility.

EPA reviewed the type and quantities of emissions emitted from secondary fiber pulping systems (recycle mills) while developing the MACT standards and determined that this is not a significant source of HAPs emissions. There are no additional controls required at this time for the recycle mill.

M. Paper Mill (EPM)

The paper mill includes the paper machines and finishing operations and all related equipment. Paper machine area emissions which include paper machines and the finishing and converting areas are not subject to VOC RACT requirements, per 06-096 CMR 134(1)(C)(7).

Emissions of VOC from the paper machines have been estimated using the emission factor 0.6 lb VOC per air dried ton (ADT) produced[3]. At the maximum production capacity of 450,000 air dried tons paper/year, maximum calculated VOC emissions from the paper machines are 135 tons/year. These emissions have not been quantified in the previous air emission license, but they were reported in the required annual emissions reporting based on the actual ADT of paper produced for each reported year. Thus, this is not an increase in emissions from GNP East, but rather the inclusion in the air emission license of already existing emissions.

[3] from White Paper No. 10b: *Environmental Comparison – Manufacturing Technologies for Virgin and Recycled Corrugated Boxes*, December 19, 1995; http://c.environmentalpaper.org/documents/1630_WP10B.pdf.

There are no reasonable control technologies employed in the industry on units of similar age and design for removing HAPs from pulp arriving in the paper mill from pulping and bleaching systems. It has also been determined that the paper making systems additives and solvents used do not result in significant emissions of HAPs. There are no additional controls required at this time for the paper mill.

N. Wastewater Treatment Plant (EWWTP) and Lime Silo

GNP East operates an industrial wastewater treatment plant (EWWTP) that treats the pulp and paper mill effluent prior to discharge into the receiving stream. The

wastewater treatment plant operates under a National Pollution Discharge Elimination System (NPDES) discharge permit.

Particulate emissions associated with lime handling are controlled through a baghouse through which all displaced air during loading of the silo is directed. Use of a baghouse to control particulate emissions from a lime silo constitutes BPT for this source.

Visible emissions from the lime silo baghouse shall not exceed 20% opacity on a six-minute block average basis except for one six-minute block average in a one-hour period. [06-096 CMR 140, BPT]

VOC RACT requirements of 06-096 CMR 134 are met through the operation of the wastewater treatment plant under a NPDES discharge permit; therefore, the wastewater treatment plant is receiving BPT for VOC emissions. [06-096 CMR 134 (3)(A)(4)(b)]

O. Sludge Handling System

GNP East operates a sludge handling system for the transportation of sludge produced at the mill's Recycle Facility to the mill's biomass boiler (EB3). The sludge handling system includes a 2715 cubic feet per minute cyclone.

The sludge handling system pneumatically conveys the sludge from the Recycle Facility via an enclosed pipeline to a cyclone at the East Millinocket facility's steam plant. The sludge is metered from the cyclone to the bark feed belt going to the day bin for EB3. The sludge handling system allows the mill to burn more dry sludge per day, which increases the longevity of the mill's licensed landfill.

This system was licensed in December 2009 and underwent a Best Available Control Technology (BACT) analysis. BACT for the sludge handling system was determined to be the use of the cyclone to minimize particulate emissions from this system.

Visible emissions from the cyclone shall not exceed 10% opacity based on a six-minute block average. A log shall be maintained documenting all routine and non-routine maintenance on the sludge handling system cyclone.

P. No. 6 Fuel Oil Tanks (EOF2 and EDT)

GNP East has two above ground fuel storage tanks, EOF2 and EDT, both of which hold No. 6 fuel oil.

- EOF2 is a 750,000 gallon fixed roof steel tank, 40 feet high and 80 feet in diameter, which was manufactured and installed in 1950.

- EDT is a 25,000 gallon fixed roof steel tank, 16'5" high and 14'11" x 15'6' in diameter, which was manufactured and installed in 1953.

GNP East shall comply with work practices to minimize fugitive emissions from the fuel storage tanks. There are no applicable requirements associated with the storage tanks.

A third tank, EOF1, is a 2.3 million gallon fixed roof steel tank, 40 feet high and 120 feet in diameter, which was manufactured and installed in 1954. This tank has been abandoned in place, per notification to the State Fire Marshal's Office in the fall of 2011, and is hereby removed from the license.

Q. Parts Washers

All parts washers in use at GNP East have been converted to 100% aqueous detergents, with no VOC containing solvents in use for this purpose. Since there are no longer emissions of any regulated pollutants from the parts washers, there are no applicable requirements under state air licensing rules and federal air licensing regulations.

R. Facility Emissions

1. *Total Licensed Annual Emissions*

Because emissions are dependent on the fuel being fired, and the facility's EB2 is licensed to fire No.6 fuel oil and No. 2 fuel oil when CNG is not available, the facility shall be restricted to the maximum annual emissions from the fuel which gives the highest tons per year quantity for each pollutant. The tons per year of pollutants from natural gas combustion in EB2 were calculated based on annual natural gas use equivalent to 795,038 MMBtu/year (using fuel heat content of 1020 Btu per scf). The tons per year limits of pollutants from No. 6 fuel oil combustion in EB2 were calculated based on 4,998,905 gallons/year of No. 6 fuel oil fired in with a sulfur content not to exceed 1.5% by weight.

GNP East shall be restricted to the following annual emissions, based on a 12-month rolling total. The tons per year limits were calculated based on the following:

- 500 hours/year operation of emergency generators EGR-V6 and EWWTP-S2;
- firing 6,482,400 gallons per year with fuel sulfur content of 1.5% in EB1;
- worst case emissions for EB2 for all firing configurations; and
- worst case lb/hour limits for EB3 from all firing configurations.

- VOC emissions do not include process emission units (woodyard, grinder room, screen room, recycle facility, paper mill, and wastewater treatment plant) which have no licensed emission limits.

Total Licensed Annual Emissions for the Facility
Tons/year
(used to calculate the annual license fee)

Unit	PM	PM_{10}	SO_2	NO_x	CO	VOC
EB1	87.5	87.5	763.3	129.7	16.2	2.5
EB2	30.2	30.2	588.6	153.2	95.4	8.4
EB3	327.2	327.2	1650.4	872.5	1308.7	37.2
EGR-V6	0.2	0.2	0.1	5.2	1.1	0.4
EWWTP-S2	0.2	0.2	0.001	2.3	0.5	0.2
Grinder Room	--	--	--	--	--	119.5
Paper Machines	--	--	--	--	--	135.0
Total TPY	**445.3**	**445.3**	**3002.4**	**1159.7**	**1421.9**	**303.2**

2. *Greenhouse Gases*

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through 'Tailoring' revisions made to EPA's *Approval and Promulgation of Implementation Plans,* 40 CFR Part 52, Subpart A, §52.21 Prevention of Significant Deterioration of Air Quality rule. Greenhouse gases, as defined in 06-096 CMR 100 (as amended), are the aggregate group of the following gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO_2e).

Based on the facility's fuel use limits, the worst case emission factors from AP-42, IPCC (Intergovernmental Panel on Climate Change), and *Mandatory Greenhouse Gas Reporting*, 40 CFR Part 98, and the global warming potentials contained in 40 CFR Part 98, GNP East is above the major source threshold of 100,000 tons of CO_2e per year.

III. AIR QUALITY ANALYSIS

GNP East previously submitted an ambient air quality analysis as part of the initial Part 70 license, A-405-70-A-I (November 13, 2002), demonstrating that emissions from the facility, in conjunction with all other sources, do not violate ambient air quality standards. An additional ambient air quality analysis is not required for this Part 70 license renewal.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that emissions from this source

- will receive Best Practical Treatment;
- will not violate applicable emissions standards; and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants the Part 70 License A-405-70-G-R/A pursuant to 06-096 CMR 140 and the preconstruction permitting requirements of 06-096 CMR 115 and subject to the standard and special conditions below.

All federally enforceable and State-only enforceable conditions in existing air licenses previously issued to GNP East, Inc. pursuant to the Department's preconstruction permitting requirements in 06-096 CMR 108 or 115 have been incorporated into this Part 70 license, except for such conditions that the Department has determined are obsolete, extraneous, or otherwise environmentally insignificant, as explained in the Findings of Fact portion of this license. As such, the conditions in this license supercede all previously issued air license conditions.

Federally enforceable conditions in this Part 70 license must be changed pursuant to the applicable requirements for making such changes found in 06-096 CMR 115 and pursuant to the applicable requirements in 06-096 CMR 140.

For each standard and special condition which is state enforceable only, state-only enforceability is designated with the following statement: **Enforceable by State-only**.

Severability. The invalidity or unenforceability of any provision of this License or part thereof shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD STATEMENTS

(1) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 CMR 140]

(2) The Part 70 license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 140]

(3) All terms and conditions are enforceable by EPA and citizens under the CAA unless specifically designated as state enforceable. [06-096 CMR 140]

(4) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 CMR 140]

(5) Notwithstanding any other provision in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 140]

(6) Compliance with the conditions of this Part 70 license shall be deemed compliance with any Applicable requirement as of the date of license issuance and is deemed a permit shield, provided that:

A. Such Applicable and state requirements are included and are specifically identified in the Part 70 license, except where the Part 70 license term or condition is specifically identified as not having a permit shield; or

B. The Department, in acting on the Part 70 license application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the Part 70 license includes the determination or a concise summary thereof.

Nothing in this section or any Part 70 license shall alter or affect the provisions of Section 303 of the CAA (emergency orders), including the authority of EPA under Section 303; the liability of an owner or operator of a source for any violation of Applicable requirements prior to or at the time of permit issuance; or the ability of EPA to obtain information from a source pursuant to Section 114 of the CAA.

The following requirements have been specifically identified as not applicable based upon information submitted by the licensee in an application dated March 19, 2007.

	Source	Citation	Description	Basis for Determination
A	Facility	06-096 CMR 104	Incinerator Particulate Emission Standard	No affected units at this facility
B	Facility	06-096 CMR 107	Sulfur Dioxide Emission Standards for Sulfite Pulp Mills	No affected units at this facility

	Source	Citation	Description	Basis for Determination
C	Fuel Oil Storage Tanks	06-096 CMR 111	Petroleum Liquid Vapor Storage Control	Vapor pressure below applicability threshold
D	Facility	06-096 CMR 124	Total Reduced Sulfur Control from Kraft Pulp Mills	No affected units at this facility
E	EB1, EB2, EB3, EGR-V6, EWWTP-S2	06-096 CMR 134	VOC RACT	VOCs from combustion units exempt, per Section 1(C)(4)
F	Woodyard	06-096 CMR 134	VOC RACT	VOCs from woodyards exempt, per Section 1(C)(6)
G	Paper Machines	06-096 CMR 134	VOC RACT	VOCs from paper machines exempt, per Section 1(C)(7)
H	Facility	06-096 CMR 145	NO_x Control Program	Facility is in a county which has received a waiver of NO_x control requirements pursuant to section 182(f) of the 1990 CAA Amendments.
I	EB1 and EB2	40 CFR Part 60, Subpart D	Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1971	Boilers were constructed prior to applicability date.
J	EB3	40 CFR Part 60, Subpart D	Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1971	Unit is less than 250 MMBtu/hr when firing oil
K	EB1, EB2, and EB3	40 CFR Part 60, Subpart Da	Standards of Performance for Electric Utility Steam Generating Units for Which Construction Is Commenced After September 18, 1978	Not electric utility steam generating units
L		40 CFR Part 60, Subpart Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units	Boilers constructed prior to applicability date
M		40 CFR Part 60, Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	Boilers >100 MMBtu/hr and constructed prior to 1989

	Source	Citation	Description	Basis for Determination
N	Storage Vessels for Petroleum Liquids	40 CFR Part 60, Subparts K, Ka, and Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels)	All tanks built prior to the applicability date
O	Facility	40 CFR Part 60, Subpart BB	Standards of Performance for Kraft Pulp Mills	No affected units at this facility
P	Facility	40 CFR Parts 72, 73, 75, 76, 77	Acid Rain Provisions	No affected units at this facility

[06-096 CMR 140]

(7) The Part 70 license shall be reopened for cause by the Department or EPA, prior to the expiration of the Part 70 license, if:

A. Additional Applicable requirements under the CAA become applicable to a Part 70 major source with a remaining Part 70 license term of 3 or more years. However, no opening is required if the effective date of the requirement is later than the date on which the Part 70 license is due to expire, unless the original Part 70 license or any of its terms and conditions has been extended pursuant to 06-096 CMR 140;

B. Additional requirements (including excess emissions requirements) become applicable to a Title IV source under the acid rain program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the Part 70 license;

C. The Department or EPA determines that the Part 70 license contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Part 70 license; or

D. The Department or EPA determines that the Part 70 license must be revised or revoked to assure compliance with the Applicable requirements.

The licensee shall furnish to the Department within a reasonable time any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the Part 70 license or to determine compliance with the Part 70 license.
[06-096 CMR 140]

(8) No license revision or amendment shall be required, under any approved economic incentives, marketable licenses, emissions trading, and other similar programs or processes for changes that are provided for in the Part 70 license.
[06-096 CMR 140]

STANDARD CONDITIONS

(1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions and this license (38 M.R.S.A. §347-C).

(2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification unless specifically provided for in Chapter 140. [06-096 CMR 140]

(3) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 CMR 140] **Enforceable by State-only**

(4) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to 38 M.R.S.A. §353-A.

(5) The licensee shall maintain and operate all emission units and air pollution control systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 140] **Enforceable by State-only**

(6) The licensee shall retain records of all required monitoring data and support information for a period of at least six (6) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Part 70 license. The records shall be submitted to the Department upon written request or in accordance with other provisions of this license. [06-096 CMR 140]

(7) The licensee shall comply with all terms and conditions of the air emission license. The submission of notice of intent to reopen for cause by the Department, the filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for the renewal of a Part 70 license or amendment shall not stay any condition of the Part 70 license. [06-096 CMR 140]

(8) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall meet the following requirements: [06-096 CMR 140] **Enforceable by State-only**

A. perform emissions testing under circumstances representative of the facility's normal process and operating conditions:

1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions;

2. to demonstrate compliance with the applicable emission standards; or

3. pursuant to any other requirement of this license to perform emissions testing.

B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

C. submit a written report to the Department within thirty (30) days from date of test completion.

(9) If the results of an emissions test performed under circumstances representative of the facility's normal process and operating conditions indicates emissions in excess of the applicable standards, then:

A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and

B. the days of violation shall be presumed to include the date of emissions test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a

demonstration of compliance under normal and representative process and operating conditions.
[06-096 CMR 140] **Enforceable by State-only**

(10) The licensee shall maintain records of all deviations from license requirements. Such deviations shall include, but are not limited to malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emission unit itself that is not consistent with the terms and conditions of the air emission license.

A. The licensee shall notify the Commissioner within 48 hours of a violation of any emission standard and/or a malfunction or breakdown in any component part that causes a violation of any emission standard, and shall report the probable cause, corrective action, and any excess emissions in the units of the applicable emission limitation;

B. The licensee shall submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component part causes a violation of any emission standard, together with any exemption requests.

Pursuant to 38 M.R.S.A. § 349(9), the Commissioner may exempt from civil penalty an air emission in excess of license limitations if the emission occurs during start-up or shutdown or results exclusively from an unavoidable malfunction entirely beyond the control of the licensee and the licensee has taken all reasonable steps to minimize or prevent any emission and takes corrective action as soon as possible. There may be no exemption if the malfunction is caused, entirely or in part, by poor maintenance, careless operation, poor design or any other reasonably preventable condition or preventable equipment breakdown. The burden of proof is on the licensee seeking the exemption under this subsection.

C. All other deviations shall be reported to the Department in the facility's semiannual report.
[06-096 CMR 140]

(11) Upon the written request of the Department, the licensee shall establish and maintain such records, make such reports, install, use, and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 140]

(12) The licensee shall submit semiannual reports of any required periodic monitoring. All instances of deviations from Part 70 license requirements must be clearly

identified in such reports. All required reports must be certified by a responsible official. [06-096 CMR 140]

(13) The licensee shall submit a compliance certification to the Department and EPA at least annually, or more frequently if specified in the applicable requirement or by the Department. The compliance certification shall include the following:

A. The identification of each term or condition of the Part 70 license that is the basis of the certification;
B. The compliance status;
C. Whether compliance was continuous or intermittent;
D. The method(s) used for determining the compliance status of the source, currently and over the reporting period; and
E. Such other facts as the Department may require to determine the compliance status of the source.

[06-096 CMR 140]

SPECIFIC CONDITIONS

(14) **Facility Fuel Oil Sulfur Content**

A. Prior to July 1, 2016, the #2 fuel oil fired at the facility shall be ASTM D396 compliant (maximum sulfur content of 0.5% by weight). [06-096 CMR 140, BPT]

B. Beginning July 1, 2016, the #2 fuel oil fired at the facility shall have a maximum sulfur content of 0.005% by weight (50 ppm). [38 MRSA §603-A(2)(A)(3)]

C. Beginning January 1, 2018, the #2 fuel oil fired at the facility shall have a maximum sulfur content of 0.0015% by weight (15 ppm). [38 MRSA §603-A(2)(A)(3)]

D. Compliance shall be demonstrated by fuel records from the supplier showing the quantity, type, and percent sulfur of the fuel delivered (if applicable). Records of annual fuel use in each boiler shall be kept on a monthly and 12-month rolling total basis. [06-096 CMR 140, BPT]

E. Prior to January 1, 2018, the No. 6 fuel oil fired at the facility shall have a maximum sulfur content of 1.5% by weight when firing only one of the two power boilers EB1 or EB2, and 0.7% by weight when EB1 and EB2 are fired concurrently. [06-096 CMR 140, BPT]

F. Per 38 MRSA §603-A(1) and (2), beginning January 1, 2018, the #6 fuel oil fired at the facility shall have a maximum sulfur content of 0.5% by weight.

G. Compliance shall be demonstrated by fuel records from the supplier showing the quantity, type, and percent sulfur of the fuel delivered, and boiler firing records. Records of annual fuel use shall be kept for each boiler on both a monthly and a rolling 12-month basis. GNP East is allowed up to 8 hours to transition from firing 1.5% sulfur No. 6 fuel oil in EB1 and EB2 to firing 0.7% sulfur NO. 6 fuel oil. [06-096 CMR 140, BPT]

(15) **Power Boilers EB1 and EB2**

A. GNP East is licensed to fire No. 6 fuel oil as the primary fuel and No. 2 fuel as optional start-up fuel in EB1. GNP East is licensed to fire either fuel oil (No. 6 or No. 2) or natural gas as the primary fuel in EB2. [06-096 CMR 140, BPT]

B. Power Boilers EB1 and EB2 must be in compliance with Subpart DDDDD requirements no later than January 31, 2016, or by the date determined through an extension of compliance if requested and granted in accordance with 40 CFR §63.6(i). [40 CFR §63.7595(b)] At such time, GNP East shall operate EB1 as a Limited Use Boiler and EB2 as a Unit Designed to Burn Gas 1, consistent with the definitions of those classes of boiler as found in Subpart DDDDD. If emission limits or other requirements of this air emission license conflict with specific Subpart DDDDD requirements, GNP East shall comply with the more stringent of the two.

Until the applicable compliance date as specified in Subpart DDDDD, the emission limits identified in the following parts shall apply.

C. As of the compliance date for EB1 under 40 CFR Part 63, Subpart DDDDD, GNP East shall comply with the following pertaining to EB1:

1. As a Limited Use Boiler, EB1 shall not exceed a 10% average annual capacity factor; thus, no greater than 2,160,800 gallons of fuel oil (#6 and #2 combined) per calendar year shall be fired in EB1.

2. EB1shall undergo a tune-up every five years as specified in 40 CFR §63.7540.

3. Because EB1 is currently not in operation to support production, the initial tune-up must be conducted within 30 calendar days of startup of the unit. [40 CFR Part 63, Subpart DDDDD, §63.7510 (j)] Subsequent tune-ups

are required every five calendar years. A compliance report shall be submitted after each tune-up, in accordance with Subpart DDDDD requirements.

D. As of the compliance date for EB2 under 40 CFR Part 63, Subpart DDDDD, GNP East shall comply with the following pertaining to EB2:

1. EB2 shall not fire liquid fuel for periodic testing of liquid fuel, maintenance, or operator training for a combined total of more than 48 hours during any calendar year. This does not preclude the firing of liquid fuel during periods of gas curtailment or gas supply interruptions of any duration.

2. If a fuel other than natural gas is to be burned in EB2, a notification of alternative fuel use must be submitted to the Department within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, per 40 CFR §63.7545(f).
3. A tune-up of EB2 is required every five years as specified in 40 CFR §63.7540. A compliance report shall be submitted after each tune-up, in accordance with Subpart DDDDD requirements.

E. Until the 40 CFR Part 63, Subpart DDDDD compliance date for these boilers, the emission limits identified in this section shall apply to EB1 and EB2 when firing fuel oil. On and after the Subpart DDDDD compliance date, these limits shall continue to apply to EB1; they will only apply to EB2 if fuel oil is being fired in a natural gas curtailment situation.

1. Emissions from **EB1 and EB2** shall each not exceed the following limits when **firing fuel oil**:

Pollutant, Units	Origin and Authority	Licensed Emission Limits from *Each* Boiler
PM, PM_{10}, lb/MMBtu	BPT A-405-70-A-I (11/13/2002)	0.18 lb/MMBtu when either EB1 or EB2 is firing 1.5% sulfur fuel oil, and 0.09 lb/MMBtu when both EB1 and EB2 are firing 0.7% sulfur fuel oil; 1-hour average
PM, PM_{10}, lb/hr	06-096 CMR 140, BPT	33.3 lb/hr firing 0.7% sulfur fuel oil; 66.6 lb/hr firing 1.5% sulfur fuel oil; 1-hour average basis
SO_2, lb/hr	06-096 CMR 140, BPT	580.9 lb/hr from each boiler when firing 1.5% sulfur fuel oil, and 271.1 lb/hr from each boiler when both are firing 0.7% sulfur fuel oil. 3-hr block average basis

Pollutant, Units	Origin and Authority	Licensed Emission Limits from *Each* Boiler
NO_x, lb/MMBtu	06-096 CMR 140, BPT	0.40 lb/MMBtu, 1-hour average
NO_x, lb/hr		98.7 lb/hr, 1-hour average
CO, lb/hr	06-096 CMR 140, BPT	12.3 lb/hr, 1-hour average
VOC, lb/hr	06-096 CMR 140, BPT	1.9 lb/hr, 1-hour average
Visible Emissions	06-096 CMR 101 Section 2(B)(1)(a)(i)	30% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a three-hour period

2. Emissions from **EB2** shall not exceed the following limits when **firing natural gas**: [A-305-77-2-A (January 23, 2013), BACT]

Unit	PM lb/hr	PM_{10} lb/hr	$PM_{2.5}$ lb/hr	SO_2 lb/hr	NO_x lb/hr	CO lb/hr	VOC lb/hr
Boiler EB2 (374.9 MMBtu/hr) natural gas	18.75	18.75	18.75	0.23	90.0	90.0	7.87

F. Compliance with emission limits associated with EB1 and EB2 shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods and frequencies as approved by the Department.

Pollutant	Emission Limits	Compliance Method	Frequency
PM, PM_{10}	lb/MMBtu and lb/hr limits	**PM:** Stack Testing 40 CFR Part 60, App. A, Method 5 **PM_{10}:** Stack Testing 40 CFR Part 60, App. A, Method 5 or EPA Test Method 201 or 201A	***PM:** Once every five years, or more frequently as requested by the Department **PM_{10}:** As requested
SO_2	lb/hr limits	40 CFR Part 60, App. A, Method 6	Upon request by the Department
NO_x	lb/MMBtu and lb/hr limits	40 CFR Part 60, App. A, Method 7	Upon request by the Department
CO	lb/hr limits	Stack Testing: 40 CFR Part 60, Appendix A, Method 10	As requested
VOC	lb/hr limits	Stack Testing: 40 CFR Part 60, Appendix A, Method 25 or 25A	As requested

G. Visible emissions from either EB1 or EB2 firing fuel oil shall not exceed 30% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a three-hour period. [06-096 CMR 101§ 2(B)(1)(a)(i)] Compliance shall be demonstrated by testing in accordance with 40 CFR, Part 60, Appendix A, Method 9 upon request by the

Department. The start-up, shut-down, and malfunction conditions of 06-096 CMR 101 also apply. [06-096 CMR 140, BPT]

When firing natural gas, visible emissions from EB2 shall not exceed 10% opacity on a six-minute block average basis, except for no more than one six-minute block average in a three-hour period. [A-305-77-2-A (January 23, 2013), BACT]

H. Periodic monitoring requirements associated with EB1 and EB2 shall include the following, whenever the equipment is operating.

Parameter	Units	Monitoring Tool/Method	Frequency
#6 and #2 fuel oil firing rates	Gallons/hour	Flow meter	Continuously, recorded every 15 minutes
#6 and #2 fuel oil used	Gallons	Fuel flow meter	Monthly and 12-month rolling total
#6 and #2 fuel oil sulfur content	Percent by weight	Fuel receipts from supplier	As fuel is purchased
Natural gas firing rate (EB2)	scf/hour	Fuel flow meter	Continuously, recorded every 15 minutes
Natural gas used (EB2)	MMscf	Fuel flow meter	Monthly and 12-month rolling total

I. GNP East shall maintain documentation of each date and time of firing of EB1 and/or EB2, including times of start-up and shut-down, the fuel fired, and the sulfur content (% by weight) of the fuel fired each time. The Department recognizes that if EB3 suffers an emergency shutdown, it may take up to 8 hours to drain the day tank and refill it with 0.7% sulfur fuel. Therefore, GNP East is allowed up to 8 hours to transition from firing 1.5% sulfur No. 6 fuel oil in EB1 and EB2 to firing 0.7% sulfur NO. 6 fuel oil. [06-096 CMR 140, BPT]

J. GNP East shall continue to utilize low NO_x burners on EB1 and EB2. [06-096 CMR 140, BPT]

K. Until the 40 CFR Part 63, Subpart DDDDD compliance date, GNP East shall maintain records of fuel use for EB1 and EB2 to document the following:

1. Fuel oil use in EB1 of less than 6,482,400 gallons per year; [06-096 CMR 140, BPT]

2. Fuel oil use in EB2 of less than 4,998,905 gallons/year if firing only fuel oil; natural gas use of less than 779.5 MMscf/year if firing only natural gas; or a combined use of fuels not to exceed the following:

a. 30% of the maximum annual potential of the boiler in MMBtu/year; and
b. The following tons/year emission limits for EB2:

PM	PM_{10}	SO_2	NO_x	CO	VOC
30.2	30.2	588.6	153.2	95.4	8.4

Compliance shall be demonstrated by fuel records from the supplier showing the quantity and type of fuel used.

[A-405-77-2-A (January 23, 2013), BACT]

L. On and after the 40 CFR Part 63, Subpart DDDDD compliance date, GNP East shall maintain fuel records from the supplier showing quantity and type of fuel used, to document the following:

1. Fuel oil use in EB1 of less than 2,160,800 gallons per year;
2. No fuel oil fired in EB2 except for situations of natural gas curtailment or other fuel oil use as allowed under Subpart DDDDD's definition of "Unit Designed to Burn Gas 1"; and
3. Natural gas use in EB2 of less than 779.5 MMscf/year.

[40 CFR Part 63, Subpart DDDDD and 06-096 CMR 140, BPT]

M. Boiler EB1 and Boiler EB2 shall each continue to be operated at an annual capacity factor not to exceed 30%. Capacity is restricted and compliance documented through the licensed annual fuel use limits for each of these boilers. [06-096 CMR 140, BPT]

N. GNP East shall monitor and record the amount of fuel oil fired in each boiler and the type and sulfur content of the fuel fired on a monthly and a 12-month rolling total basis. [06-096 CMR 140, BPT]

Upon documentation that the annual fuel use has exceeded 6,482,400 gallons per continuous 12-month period for either Boiler EB1 or Boiler EB2, within 60 days thereafter GNP East shall install, calibrate, maintain, and operate a continuous opacity monitoring system (COMS) and a continuous emission monitoring system (CEMS) for NO_x in accordance with the performance specifications set forth in 40 CFR Part 60, Appendix B for the boiler or boilers that exceed this limit. [06-096 CMR 117 (B)(2) and (C)(1)(b)]

O. GNP East shall conduct stack testing for particulate matter once every five years on EB1 and EB2 unless otherwise directed by the Department. [06-0996 CMR 140, BPT]

(16) **Power Boiler EB3**

A. GNP East is licensed to operate EB3 firing No. 6 fuel oil, No. 2 fuel oil, specification waste oil, and biomass. Biomass includes wood, bark, paper cores and other paper related waste products, primary clarifier sludge, recycle plant sludge, and telephone poles. [06-096 CMR 140, BPT]

B. GNP East shall not exceed a heat input to EB3 of 240 MMBtu/hour from total oil firing, with a maximum firing rate of 1550 gallons/hour. [EPA PSD Permit Number 006-109 ME 03, issued May 1, 1979]

C. The sulfur content of the fuel oil fired shall not exceed 1.5% by weight demonstrated by purchase records from the supplier. [06-096 CMR 140, BPT] **Enforceable by State-only**

D. Emissions from EB3 shall not exceed the following limits:

Pollutant, Units	Licensed Emission Limits	Origin and Authority
PM, PM_{10}, lb/MMBtu	0.15 lb/MMBtu, 1-hour average	EPA PSD Permit 006-109-ME 03 (May 1, 1979)
PM, PM_{10}, lb/hr	74.7 lb/hr; 1-hour average	06-096 CMR 140, BPT
SO_2, lb/hr	376.8 lb/hr when firing oil, 3-hr block average basis	06-096 CMR 140, BPT
NO_x, lb/MMBtu	0.40 lb/MMBtu, 24-hour daily block average	06-096 CMR 138 (4)(3)
NO_x, lb/hr	199.2 lb/hr, 1-hour average	06-096 CMR 140, BPT
CO, lb/hr	298.8 lb/hr, 1-hour average	06-096 CMR 140, BPT
VOC, lb/hr	8.5 lb/hr, 1-hour average	06-096 CMR 140, BPT
Visible Emissions	30% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a three-hour period	06-096 CMR 101 §2(B)(1)(e)

E. Demonstration of Compliance

1. Compliance with emission limits associated with EB3 shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods and frequencies as approved by the Department. **Enforceable by State Only**

Pollutant	Emission Limits	Compliance Method	Frequency
PM, PM_{10}	lb/MMBtu and lb/hr limits	**PM:** 40 CFR Part 60, App. A, Method 5 **PM_{10}:** 40 CFR Part 60, App. A, Method 5 or EPA Test Method 201 or 201A	**PM:** Once every five years, or more frequently as requested by the Department **PM_{10}:** As requested
SO_2	lb/MMBtu and lb/hr limits	40 CFR Part 60, App. A, Method 6	Upon request by the Department
NO_x	lb/MMBtu	NOx CEMS*	24-hour block average
NO_x	lb/hr limits	40 CFR Part 60, App. A, Method 7	As requested
CO	lb/hr limits	40 CFR Part 60, Appendix A, Method 10	
VOC	lb/hr limits	40 CFR Part 60, Appendix A, Method 25 or 25A	

Pollutant	Compliance Method	Frequency
Visible Emissions	40 CFR Part 60, Appendix A, Method 9	As requested

Visible emissions opacity limits shall not apply during the first four hours of boiler start-up or shut-down. During that time, GNP East shall maintain operating records to demonstrate that the unit was being operated to minimize emissions. [06-096 CMR 101 (3)(B), 06-096 CMR 140, BPT]

2. The 0.40 lb/MMBtu NO_x limit is based on a 24-hour block average, demonstrated by a CEMS. In accordance with 06-096 CMR 138, periods of startup, shutdown, equipment malfunction, and fuel switching shall not be included in determining 24-hour daily block arithmetic average emission rates provided that operating records are available to demonstrate that the facility was being operated to minimize emissions.

3. A 24-hour block average basis shall be defined as midnight to midnight.

4. GNP East shall maintain the NO_x CEMS in accordance with requirements of 06-096 CMR 117. The CEMS shall meet the monitoring requirements of 40 CFR §60.13 as well as 40 CFR Part 60, Appendices B and F. [06-096 CMR 140, BPT]

5. A CO CEMS shall be installed, operated, and maintained as of January 31, 2016, or an alternate date as allowed under 40 CFR Part 63, Subpart DDDDD.

6. Documentation shall be maintained that all CEMS are continuously accurate, reliable, and operated in accordance with 06-096 CMR 117, 40 CFR Part 51 Appendix P, and 40 CFR Part 60, Appendices B and F.

F. Periodic Monitoring

Whenever EB3 is operating, GNP East shall periodically monitor and record the following for EB3 and its associated air pollution control equipment:

Parameter	Units	Monitoring Tool/Method	Frequency
Fuel oil use	Gallons	Fuel flow meter	Daily, monthly, and 12-month rolling total
Fuel oil sulfur content	Percent, by weight	Fuel receipts from supplier	As fuel is purchased
Waste oil use	Gallons	Estimation of amount collected and burned	Daily, monthly, and 12-month rolling total
Operating time	Hours	Boiler control system (DCS)	Daily, monthly, and calendar year

G. Parameter Monitoring

For the ESP associated with EB3, GNP East shall monitor and record operating parameters specified in the following table: [06-096 CMR 140, BPT]

Parameter	Units of Measure	Monitoring Tool/Method	Frequency of Monitoring and Recording
Primary Voltage	Volts or kilovolts	Volt meter	Monitor Continuously, Record once per shift
Secondary Voltage	Volts or kilovolts	Volt meter	
Primary Current	Amps	Amp meter	
Secondary Current	Amps	Amp meter	
Gas pressure drop across ESP	Pounds per square inch (gauge)	Pressure gauges	Monitor Continuously, Record once per shift
Inlet gas temperature	Degrees Fahrenheit	Thermocouple	
Outlet gas temperature	Degrees Fahrenheit	Thermocouple	

H. In compliance with 40 CFR Part 63, Subpart DDDDD, GNP East shall comply with the following:

At all times, GNP East must operate and maintain affected units and the associated air pollution control equipment and monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR §3.7500(a)(3)]

Energy Assessment
The facility shall have a one-time energy assessment performed by a qualified energy assessor no later than January 31, 2016, or comply with any amended requirements of the rule pertaining to the energy assessment and its due date. The energy assessment must include the elements specified in Part 4 of Table 3 of Subpart DDDDD, as applicable. [40 CFR §63.7500(e)]

An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the aforementioned energy assessment requirements is valid. A facility that operates under an energy management program compatible with ISO 50001 that includes applicable boilers and process heaters satisfies the energy assessment requirements.

Recordkeeping
GNP East shall maintain records in accordance with 40 CFR §63.7555 and containing information necessary to document compliance with all applicable requirements, including but not limited to the following:

1. A copy of each notification and report submitted to comply with this Subpart, along with any supporting documentation.
2. Records of energy assessments and tune-ups, as applicable.

GNP East shall maintain records in accordance with 40 CFR §63.10(b).

Reporting
GNP East shall submit a compliance report for the one-time energy assessment, as applicable, and for each tune-up required by this Subpart in accordance with 40 CFR §63.7550.

I. Power Boiler EB3 must be in compliance with Subpart DDDDD requirements no later than January 31, 2016, or by the date determined through an extension of compliance if requested and granted in accordance with 40 CFR §63.6(i). [40 CFR §63.7595(b)] At such time, GNP East shall operate EB3 as a Unit Designed to Burn Solid Fuel (Stoker/Sloped Grate to Burn Wet Biomass), consistent with the Subpart DDDDD definition of this class of boiler, and in accordance with applicable requirements, including the following:

1. Emission Limits and Work Practice Standards

   a. Operation Other Than Startup and Shutdown

      On and after the compliance date for this boiler under Subpart DDDDD, GNP East shall comply with the following emission limits for EB3, except during startup and shutdown. In cases where the Subpart DDDDD requirements conflict with the requirements specified previously in this license condition, GNP East shall comply with the more stringent requirement.

Pollutant	Emission Limit	Origin
Filterable PM	0.037 lb/MMBtu	#7 of Table 2 to 40 CFR Part 63, Subpart DDDDD, *Stokers/sloped grate/others designed to burn wet biomass fuel*
Hg	5.7E-06 lb/MMBtu	#1 of Table 2 to 40 CFR Part 63, Subpart DDDDD, *Units in all subcategories designed to burn solid fuel*
HCl	0.022 lb/MMBtu	
CO	1,500 ppmv (dry) @ 3% O_2, 3-run average (if compliance is demonstrated via emissions testing); or 720 ppmv (dry) @ 3% O_2, 30-day rolling average (if compliance is demonstrated via a CO CEMS)	#7 of Table 2 to 40 CFR Part 63, Subpart DDDDD, *Stokers/sloped grate/others designed to burn wet biomass fuel*
Visible Emissions	Not to exceed 10% opacity on a daily block average basis, monitored with a continuous opacity monitoring system (COMS)	#4a. of Table 4 to 40 CFR Part 63, Subpart DDDDD, *Electrostatic precipitator control on units not using a PM CPMS*

b. Operation during Startups and Shutdowns [#5 and #6 of Table 3 to 40 CFR Part 63, Subpart DDDDD]

During periods of startup and shutdown, GNP East shall operate EB3 in accordance with the following work practice standards. Startup ends when steam or heat is supplied for any purpose.

(1) All continuous monitoring systems (CMS) shall be operated during periods of startup and shutdown.

(2) Unless the conditions of (3) below are complied with, EB3 shall be started up using one or a combination of the following clean fuels: distillate oil, ultra-low sulfur diesel fuel, fuel oil-soaked rags, kerosene, paper, and cardboard. Note: Other clean fuels are allowed for startup under Subpart DDDDD which EB3 is not currently licensed to burn.

(3) If EB3 is started firing biomass and/or #6 fuel oil, emissions must be vented to the main stack and the mechanical dust collectors and the ESP must be in operation.

(4) While firing biomass and/or #6 fuel oil during shutdown, emissions shall be vented to the main stack and the mechanical dust collectors and the ESP shall continue to be in operation.

(5) Monitoring data shall be collected during periods of startup and shutdown, as specified in 40 CFR §63.7535(b). Records shall be maintained and reports provided concerning activities and periods of startup and shutdown, as specified in 40 CFR §63.7555.

2. Tune-Ups

GNP East shall complete an initial tune-up of EB3 according to the procedures in § 63.7540(a)(10)(i) through (vi) no later than January 31, 2016, or the initial tune-up due date established through the facility's possible compliance date extension request. [40 CFR §63.7510(e)] Subsequent tune-ups must be conducted annually. [#3 of Table 3 to 40 CFR Part 63, Subpart DDDDD]

3. Fuel Analyses

GNP East shall conduct monthly fuel analyses, with the possibility of the frequency being reduced to quarterly if 12 months of continuous samples show less than 75% of the compliance limit. The monthly requirement would recommence if any quarterly sample is above 75% of the limit, per §63.7515(e).

4. Performance Testing

GNP East shall conduct initial and annual performance testing on EB3 unless performance testing indicates emission levels below 75% of required levels for two consecutive years, at which time the required testing frequency may be reduced to every third year. Boiler parameters must remain unchanged during that time, and emission levels above 75% of the limit will cause testing to return to an annual basis.

Demonstration of compliance shall be emissions testing according to the EPA test methods prescribed in Table 5 to 40 CFR 63, Subpart DDDDD. The operating load of Boiler #3 must be maintained such that it does not exceed 110% of the highest hourly average operating load recorded during the most recent performance test. [#8 of Table 4 to 40 CFR Part 63, Subpart DDDDD]

5. Reporting

GNP East shall fulfill the semi-annual compliance reporting requirements of 40 CFR Part 63, Subpart DDDDD, § 63.7550(b) and Table 9 of Subpart DDDDD.

J. GNP East shall continue to operate and maintain mechanical dust collectors and an electrostatic precipitator on Boiler EB3 for control of particulate matter emissions. [06-096 CMR 140, BPT]

K. GNP East shall not exceed an annual fuel oil cap (No. 6 and specification waste oil combined) for EB3 of 13,578,000 gallons in any continuous 12-month period, demonstrated by fuel use records maintained on a both a monthly and a 12-month rolling total basis. [06-096 CMR 140, BPT]

L. GNP East shall operate a CEMS on EB3 which provides data to calculate NO_x lb/MMBtu and O_2 ppm from EB3.
Opacity from the EB3 stack shall be monitored by a COMS. [06-096 CMR 117; 06-096 CMR 138; 06-096 CMR 140, BPT]

M. GNP East shall conduct stack testing for particulate matter once every five years on EB3 unless otherwise required by this license or directed by the Department. [06-0996 CMR 140, BPT]

(17) **Natural Gas Line Heaters**

GNP East shall conduct a tune-up of each Natural Gas Line Heater every five years and as specified in 40 CFR Part 63, §63.7540. [Table 3 to Subpart DDDDD of 40 CFR Part 63]

(18) **Emergency Generators and Engines**

A. GNP East is licensed to operate Fire Protection Pump EGR-V6 (4.69 MMBtu/hour) firing diesel fuel, the Emergency Lift Pump EWWTP-S2 (2.1 MMBtu/hour) firing diesel fuel, and the Instrument Emergency Generator firing LPG. [06-096 CMR 140, BPT]

B. The diesel fuel sulfur content for units EGR-V6 and EWWTP-S2 shall be limited to 0.0015% sulfur by weight. Compliance shall be demonstrated by fuel records from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [06-096 CMR 140, BPT]

C. The units are each limited to 500 hours per year total operation, based on a 12-month rolling total. Compliance shall be demonstrated by a log of all generator operating hours. [06-096 CMR 140, BPT]

D. Emissions from EGR-V6 and EWWTP-S2 shall not exceed the following:

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
PM	0.12	06-096 CMR 103 2(B)(1)(a)	**Federally Enforceable**

Pollutant	EGR-V6 4.69 MMBtu/hr lb/hr	EWWTP-S2 2.1 MMBtu/hr lb/hr	Origin and Authority	Enforceability
PM, PM_{10}	0.6	0.7	MEDEP Chapter 140, BPT	Federally Enforceable
SO_2	0.01	0.003		
NO_x	20.7	9.3		
CO	4.5	2.0		
VOC	1.7	0.8		

E. Visible emissions from either generator EGR-V6 or EWWTP-S2 shall not exceed 20% opacity on a six-minute block average, except for no more than two six-minute block averages in a three-hour period. [06-096 CMR 101]

F. The Emergency Generators EGR-V6, EWWTP-S2, and the Instrument Emergency Engine (EG-INST) shall meet the applicable requirements of 40 CFR Part 63, Subpart ZZZZ, including the following:

1. No later than May 3, 2013, GNP East shall meet the following operational limitations for each of the compression ignition (diesel-fired) emergency generators:

   a. Change the oil and filter annually,
   b. Inspect the air cleaner annually and replace as necessary, and
   c. Inspect the hoses and belts annually and replace as necessary.

   A log shall be maintained documenting compliance with the operational limitations.

   [40 CFR §63.6602 and Table 2(c); and 06-096 CMR 140, BPT]

2. GNP East has the option of utilizing an oil analysis program which complies with the requirements of §63.6625(i) in order to extend the specified oil change requirement. If this option is used, GNP East must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the applicable engines. The analysis program must be part of the maintenance plan for the engine. [40 CFR§63.6625(i)]

3. A non-resettable hour meter shall be installed and operated on each generator. [40 CFR §63.6625(f) and 06-096 CMR 140, BPT]

4. Maintenance, Testing, and Non-Emergency Operating Situations

   a. The generators shall each be limited to 100 hours/year for maintenance checks and readiness testing, emergency demand response, and periods

of voltage or frequency deviation from standards. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity unless the conditions in §63.6640(f) are met). These limits are based on a calendar year. Compliance shall be demonstrated by a written log of all generator operating hours. [40 CFR §63.6640(f) and 06-096 CMR 140]

b. GNP East shall keep records that include maintenance conducted on the generators and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the hours spent for emergency operation, including what classified the operation as emergency and how many hours spent for non-emergency. If the generators are operated during a period of demand response or deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f)(1), (2), and/or (3), then GNP East must keep records of the notification of the emergency situation, and the date, start time, and end time of generator operation for these purposes. [40 CFR §63.6655(e) (excluding EGR-V6) and 40 CFR §63.6655(f) (for all emergency RICE)]

5. The generators, excluding EGR-V6, shall be operated and maintained according to the manufacturer's emission-related written instructions, or GNP East shall develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engines in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR §63.6625(e) (for EWWTP-S2 and EG-INST); 06-096 CMR 140 (for EGR-V6)]

6. During periods of startup the facility must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply for all engines except EGR-V6. [40 CFR §63.6625(h) & 40 CFR Part 63, Subpart ZZZZ Table 2c]

7. If GNP East operates or is contractually obligated to be available for more than 15 hours per calendar year in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f), the facility shall submit an

annual report containing the information in §63.6650(h)(1)(i) through (ix). The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year. The annual report must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form is not available in CEDRI at the time that the report is due, the written report must be submitted to the following address:

Director, Office of Ecosystem Protection
U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Boston, MA 02109-3912

[40 CFR §63.6650(h)]

(19) **Waste Water Treatment Plant (EWWTP) and Lime Silo**

A. GNP East shall maintain a valid NPDES and/or SPDES permit for its Wastewater Treatment Plant. [06-096 CMR 134, VOC RACT]

B. Visible emissions from the lime silo baghouse shall not exceed 20% opacity on a six-minute block average basis except for one six-minute block average in a one-hour period. [06-096 CMR 140, BPT]

(20) **Sludge Handling System**

A. GNP East shall operate and maintain a cyclone on the sludge handling system. [06-096 CMR 140, BACT/BPT]

B. Visible emissions from the cyclone shall not exceed 10% on a six-minute block average basis. [06-096 CMR 140, BACT/BPT]

C. GNP East shall maintain a log detailing all routine and non-routine maintenance on the cyclone. The log shall include the location, date, and nature of all failures or malfunctions. [06-096 CMR 140, BACT/BPT]

(21) **Fugitive Emissions**

Visible emissions from fugitive emission sources (including stockpiles and roadways) shall not exceed 20% opacity, except for no more than five minutes in any one-hour period. Compliance shall be determined by an aggregate of the individual fifteen-second opacity observations which exceed 20% in any one hour. [06-096 CMR 101]

(22) **General Process Sources**

Visible emissions from any general process source shall not exceed 20% opacity on a six-minute block average basis, except for no more than one six-minute block average in a one-hour period. [06-096 CMR 101]

(23) **Monitoring and Recordkeeping Requirements** [06-096 CMR 140, 117, 122]

A. Periodic Monitoring shall include the following:

1. Fuel use in each of EB1, EB2, and EB3.
2. Amount, in gallons, of specification waste oil fired in EB3.
3. Fuel oil sulfur content.
4. Specification waste oil sulfur content.
5. Documentation of annual capacity factor for EB1 and EB2.
6. Log of the date, time, and sulfur content (as applicable) of fuel fired for all operation of EB1 and EB2.
7. Sulfur content of diesel fuel fired in the Fire Protection Pump and Emergency Lift Pump.
8. Fire Protection Pump and Emergency Lift Pump hours of operation.
9. Documentation that GNP East is maintaining a valid NPDES and/or SPDES permit for the Wastewater Treatment Plant.

B. For all CEMS and COMS recordkeeping shall include the following:

1. Documentation that all CEMS and COMS are continuously accurate, reliable, and operated in accordance with 06-096 CMR 117, 40 CFR Part 51, Appendix P, and 40 CFR Part 60, Appendices B and F;

2. Records of all measurements, performance evaluations, calibration checks, and maintenance or adjustments for each CEMS and COMS as required by 40 CFR Part 51 Appendix P;

3. A report of other data indicative of compliance with the applicable emission standards for those periods when the CEMS or COMS were not in operation or produced invalid data. In the event the Department does not concur with the licensee's compliance determination, the licensee shall, upon the Department's request, provide additional data, and shall have the burden of demonstrating that the data is indicative of compliance with the applicable standard.

(24) **Quarterly Reporting** [06-096 CMR 140, BPT]

The licensee shall submit a Quarterly Report to the Bureau of Air Quality within 30 days after the end of each calendar quarter, detailing the following for the control equipment, parameter monitors, Continuous Emission Monitoring Systems (CEMS), and Continuous Opacity Monitoring Systems (COMS) required by this license. [06-096 CMR 117]

A. All control equipment downtimes and malfunctions;
B. All CEMS or COMS downtimes and malfunctions;
C. All parameter monitor downtimes and malfunctions;
D. All excess events of emission and operational limitations set by this Order, Statute, and state or federal regulations, as appropriate. The following information shall be reported for each excess event:
   1. Standard exceeded;
   2. Date, time, and duration of excess event;
   3. Amount of air contaminant emitted in excess of the applicable emission standard expressed in the units of the standard;
   4. A description of what caused the excess event;
   5. The strategy employed to minimize the excess event; and
   6. The strategy employed to prevent reoccurrence.
E. A report certifying there were no excess emissions, if that is the case.

(25) **Semiannual Reporting [06-096 CMR 140, BPT]**

A. The licensee shall submit semiannual reports to the Department due **January 31st** and **July 31st** of each year. The facility's designated responsible official must sign this report.

B. The semiannual report shall be considered on-time if the postmark of the submittal is before the due date or if the report is received by the Department within seven calendar days of the due date.

C. Each semiannual report shall include a summary of the periodic and CAM monitoring required by this license.

D. Each semiannual report shall include a demonstration of compliance with the annual capacity factor of EB1 and EB2 specified in the above Specific Conditions.

E. All instances of deviations from license requirements and the corrective action taken must be clearly identified and provided to the Department in summary form for each six-month interval.

(26) **Annual Compliance Certification** [06-096 CMR 140, BPT]

GNP East shall submit an annual compliance certification to the Department in accordance with Standard Condition (13) of this license. The annual compliance certification is due **January 31st** of each year. The facility's designated responsible official must sign this report.

The annual compliance certification shall be considered on-time if the postmark of the submittal is before the due date or if the report is received by the Department within seven calendar days of the due date. Certification of compliance is to be based on the emissions testing or monitoring data required by this license. Where the license does not require such data or the license requires such data upon request of the Department and the Department has not requested the testing or monitoring, compliance may be certified based upon other reasonably available information, such as the design of the equipment or applicable emission factors.

(27) **Annual Emission Statement** [06-096 CMR 137]

In accordance with *Emission Statements*, 06-096 CMR 137 (as amended), the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of either of the following:

A. A computer program and accompanying instructions supplied by the Department; or

B. A written emission statement containing the information required in 06-096 CMR 137.

The emission statement must be submitted by the date as specified in 06-096 CMR 137.

(28) **General Applicable State Regulations**

The licensee is subject to the State regulations listed below.

Origin and Authority	Requirement Summary	Enforceability
06-096 CMR 102	Open Burning	-
06-096 CMR 109	Emergency Episode Regulations	-
06-096 CMR 110	Ambient Air Quality Standards	-
06-096 CMR 116	Prohibited Dispersion Techniques	-
38 M.R.S.A. §585-B, §§5	Mercury Emission Limit	**Enforceable by State-only**

(29) **Units Containing Ozone Depleting Substances**

When repairing or disposing of units containing ozone depleting substances, the licensee shall comply with the standards for recycling and emission reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioning units in Subpart B. Examples of such units include refrigerators and any size air conditioners that contain CFCs. [40 CFR, Part 82, Subpart F]

(30) **Asbestos Abatement**

When undertaking Asbestos abatement activities, GNP East shall comply with the *Standard for Asbestos Demolition and Renovation.* [40 CFR Part 61, Subpart M]

(31) **Expiration of a Part 70 License**

GNP East shall submit a complete Part 70 renewal application at least six months but no more than 18 months prior to the expiration of this air license, in accordance with the requirements specified in 06-096 CMR 140. [06-096 CMR 140 (3)(B)(1)]

Pursuant to Title 5 MRSA §10002, and 06-096 CMR 140, the Part 70 license shall not expire and all terms and conditions shall remain in effect until the Department takes final action on the renewal application of the Part 70 license. An existing source submitting a complete renewal application under Chapter 140 prior to the expiration of the Part 70 license will not be in violation of operating without a Part 70 license. **Enforceable by State-only**

(32) New Source Review

GNP East is subject to all previous New Source Review (NSR) requirements summarized in this Part 70 air emissions license, and the NSR requirements remain in effect even if this 06-096 CMR 140 Air Emissions License, A-405-70-G-R/A, expires.

DONE AND DATED IN AUGUSTA, MAINE THIS 14 DAY OF February , 2014.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Mara Allen Robert Cove for
PATRICIA W. AHO, COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

[Note: If a complete renewal application as determined by the Department, is submitted at least 6 but no more than 18 months prior to expiration, then pursuant to Title 5 MRSA §10002, all terms and conditions of the Part 70 license shall remain in effect until the Department takes final action on the Part 70 license renewal application.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: March 19, 2007
Date of application acceptance: March 21, 2007

Date filed with the Board of Environmental Protection:

Filed
FEB 18 2014
State of Maine
Board of Environmental Protection

This Order prepared by Jane E. Gilbert, Bureau of Air Quality.